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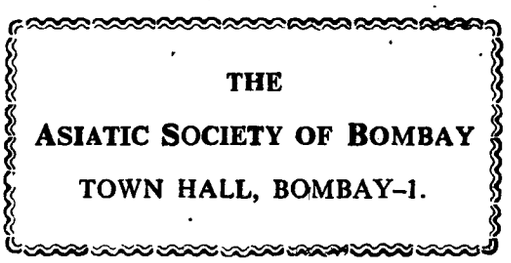

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non-officials. The total number of municipal members was 1,601, divided thus:— MUNICIPALITIES.

Elected -	1,257	Non-officials -	1,301	Indians - -	1,411
Nominated - -	334	Officials - -	300	Europeans - -	190

Each municipality held, on the average, 20·2 general meetings in the year; 10 committees held less than the prescribed minimum of 12 meetings in the year. For all the municipalities of the province the average attendance of members at each meeting decreased from 55 to 47 per cent.; in six towns the average attendance at each meeting exceeded 70 per cent., and in two it fell below 45 per cent. of the total members. In respect of number of meetings and attendance the year's results were somewhat worse than those of 1895-96.

The chief source of municipal taxation was the octroi duty, which is in force in 81 towns, and yielded a net income of Rx. 231,000; while other taxes yielded Rx. 84,000; Rx. 69,800 accrued from rents and miscellaneous sources. The incidence of income from taxation was 15½ annas per head of the municipal population. The highest incidence was 5¼ rupees a head at the hill stations of Mussoorie and Naini Tal; and the highest incidence at any town in the plains was 1¾ rupees at Benares. The total municipal income of the year was Rx. 398,000, besides Rx. 17,000 borrowed for works of water supply and drainage. Of the expenditure, 50 per cent. was devoted to conservancy, hospitals, water supply, drainage, streets, roads, public works, and other objects for promoting the public health and convenience; 3½ per cent. was spent on education, 16 per cent. on police, lighting, and fire establishments. The outlay on water supply was Rx. 89,000; on drainage, Rx. 32,000; and on conservancy, Rx. 94,000.

The towns which spent most on water supply and drainage during the year were Meerut, Rx. 38,000; Benares, Rx. 12,000; Lucknow, Rx. 13,000.

In Agra the daily supply of filtered water was 1,530,000 gallons, or nearly 10 gallons per head. This supply was 18 per cent. larger than, and was furnished at the same cost as, in 1895-96. In Allahabad the filtered water daily supply increased by 10 per cent.; the cost per 1,000 gallons was four annas, or twice as expensive as at Agra. In Benares the daily average supply of filtered water rose from 7½ gallons to 8⅓ gallons per head, and the cost of the supply increased nearly 25 per cent. In Cawnpore the supply was over 5 gallons per head, at a cost of 4¾ annas per 1,000 gallons. The water-supply works at Meerut were completed in 18 months, and at 8 per cent below the estimate, they were opened in May 1896, and the daily supply had reached 476,000 gallons by the end of March 1897. In Lucknow the average daily supply rose from 604,000 to over a million gallons, and the cost fell from eight annas to five annas per 1,000 gallons. The only large sewerage works in progress were at Benares, where Rx. 18,500 worth of work was done during the year. The Local Government say that "on the whole the municipal boards have "stood the stress of an exceptionally difficult season creditably," and have given "willing and valuable assistance" towards the measures taken "to protect "the towns against the possible contagion of plague."

The number of municipalities in the Punjab was, as in the previous year, 148 in all, containing a population of 2,079,764, besides six small towns, which had a modified form of municipal administration without being constituted as municipalities. On 110 municipal committees two-thirds or more of the members are chosen by the ratepayers; in 37 towns all the members are nominated; in one town the municipal fund was administered by the district officer. The total number of members on all the committees was 1,672, divided thus:— Punjab

Non-official - - - -	1,348	Indians - - - -	1,544
Official - - - -	324	Europeans or Eurasians - -	128
Elected - - - -	811	Nominated and *ex-officio* - -	801

The number of vacancies to be filled during the year was 287, of which 112 were filled after contested elections. In many towns elections were keenly contested; the number of electors appearing at the polls averaged 67 per cent. of the constituents. At the triennial election for 20 seats on the Lahore Council 78 per cent. of the electors recorded their votes.

MUNICIPALITIES.

Eleven municipal committees held 30 or more meetings a-piece during the year, and 21 committees failed to hold the prescribed minimum of 12 meetings. The working of the committees in the larger towns throughout the province is reported to be fairly good; on some committees party feeling has run high and obstruction or delay has occurred; in a few cases the proceedings of committees have been remitted for reconsideration or overruled. The Lahore committee has so far failed to introduce any scheme for an adequate water supply. The Amritsar committee does its work zealously and usefully, as in previous years.

The chief municipal tax was the octroi, which yielded Rx. 267,000, while the other taxes produced Rx. 21,200; the incidence of the total revenue from taxation was 1·29 rupees per head of the population. The total municipal income of the year from all sources was Rx. 434,000, of which Rx. 20,000 was from loans. The decrease of three lakhs in the octroi income was attributed to the failure of harvests. The expenditure was Rx. 457,000, out of which Rx. 26,500 were spent on water supply, Rx. 10,500 on drainage, Rx. 61,000 on conservancy, Rx. 40,500 on hospitals and vaccination, Rx. 30,000 on streets and roads, Rx. 60,000 on schools, Rx. 10,400 on repayment of loans, and Rx. 67,000 on police, fire-engines and street lighting. The net amount of debt outstanding against all municipalities was Rx. 365,000; and the yearly charge for interest was Rx. 15,000. Waterworks were being constructed or extended at Bhowani and Simla. Large drainage and sewage schemes were in progress at Delhi and Ludhiana. The year was unusually healthy in all towns throughout the province. The only serious outbreak of epidemic was of cholera at Rawal Pindi.

Burma. Rangoon.

The town of Rangoon contains a population of 209,000, and its municipal affairs are managed by a committee, composed of 17 elected and seven nominated members, with a salaried president. No elections took place during the year. Thirteen of the members were Europeans or Eurasians, and eleven were Asiatics; 21 were non-officials, and three, including the president, were officials. Twelve general meetings and 55 sub-committee meetings were held during the year; the attendance at the general meetings averaged 58 per cent. of the whole strength. The income of the municipality was Rx. 270,000, out of which Rx. 110,200 accrued from rates (general, water, lighting, and scavenging) on houses and lands; Rx. 72,000 from the proceeds and rents of municipal properties; and Rx. 30,000 from provincial funds. No loan was raised during the year, but Rx. 20,900 of debt were paid off. The year was prosperous and most sources of income showed a moderate increase. The expenditure of the year amounted to Rx. 276,000, of which Rx. 19,700 were spent on waterworks, and drainage, Rx. 26,400 on conservancy, Rx. 17,800 on hospitals and vaccination, Rx. 40,600 on streets and roads, Rx. 26,100 on reclamation of swamps, Rx. 5,900 on education, and Rx. 41,500 on the interest (Rx. 20,600) and repayment (Rx. 20,900) of loans. The net outstanding debt of the municipality at the end of the year was Rx. 367,000. The pneumatic sewage system worked well during the year, and is being gradually extended to other sections of the town. The ejectors disposed of 624 million gallons of sewage during the year at a cost of 1¾ annas per thousand gallons. The town birth-rate was 18 per mille, or somewhat lower than in the preceding year; the death-rate was 31·3 per mille, against 28·5 and 35·3 in the two preceding years, for the whole town.

Burma. Interior of Province.

The number of municipalities in Burma outside Rangoon was 41, as in the previous year, and they contained a total population of 645,000. In 11 of these towns a majority of the municipal members are elected by the ratepayers, in the remaining towns all the members hold their position either *ex-officio* or by nomination. The decision in the case of each municipality, as to whether the method of election or that of nomination shall be adopted, rests with the local government. There are in all 515 members on the several municipal committees, divided thus:—

Elected - -	85	Non-officials -	332	Asiatics - -	366
Ex-officio and nominated.	430	Officials - -	183	Europeans -	149

At the Bassein elections only was there a hot contest between rival Burmese candidates; five seats were contested, people canvassed freely, and

every available voter went to the poll. Elsewhere the elections aroused little or no interest. Three towns held less than 12 meetings in the year; the average attendance at each meeting ranged from 31 to 96 per cent. of the members, in six towns only was the average attendance below half the total strength of the committee. MUNICIPALITIES.

The chief sources of municipal taxation are the rates on the annual value of houses and lands, yielding Rx. 46,490 out of a total income from taxation of Rx. 69,200; ferry tolls yielded Rx. 9,200, and conservancy rates Rx. 5,300. The other chief sources of municipal revenue were municipal property, chiefly bazaar rents, Rx. 101,400; provincial and other grants and contributions Rx. 3,600. The total income of the year, apart from loans and debt account, was Rx. 177,500. The total expenditure of the year was Rx. 170,800, of which the chief items were Rx. 32,100 on conservancy; Rx. 19,800 on hospitals and dispensaries; Rx. 17,300 on markets and slaughter-houses; Rx. 39,200 on streets and roads; Rx. 6,700 on education; and Rx. 1,500 on water supply. Rangoon, Mandalay, Moulmein, Bassein, Akyab, and Prome are the only towns in Burma that have a municipal income of over Rx. 10,000. The average incidence of municipal taxation outside Rangoon was 18¼ annas a head in Lower and 15¼ annas per head in Upper Burma. No money was borrowed by any town during the year; Rx. 3,600 were repaid towards outstanding loans, and the interest due on all loans during the year was Rx. 1,200; the outstanding loans of all towns amounted to Rx. 17,100 at the end of the year. Besides municipalities there are seven other places in Lower Burma where town funds are raised, the amount during the year being Rx. 9,500, and are managed by committees nominated from among the townsfolk.

The number of municipalities in the Central Provinces was 53, as in the preceding year. A majority of the members of all committees, except that at the hill resort of Pachmarhi, are elected; out of 623 members on all committees, 447 were elected, and 176 were nominated, or *ex-officio*; 145 were officials, and 478 non-officials; 57 were Europeans, and 566 were Natives of India. There were no general elections; where elections fell due, they were postponed on account of the prevailing distress. The total municipal receipts of the year were Rx. 157,000, of which Rx. 69,300 accrued from octroi duties, and Rx. 20,000 from loans. The total income, apart from loans, was Rx. 3,000 above similar receipts in the previous year. The total municipal expenditure was Rx. 164,200, or Rx. 7,000 more than in the preceding year. The expenditure on waterworks was Rx. 23,000, or the same as in 1895–96, chiefly on the Khundwa water works; on conservancy Rx. 26,000; on schools and colleges Rx. 15,000; on streets and roads Rx. 12,400; and on dispensaries, hospitals, and vaccination, Rx. 8,400. Central Provinces

When reviewing the work of the municipalities, the local government says, "The work of the Municipal Committees during the year has on the "whole been satisfactory. The Chief Commissioner recognises that many "members of committees, both in their corporate and their individual capacity, "rendered valuable assistance in dealing with the famine."

The number of municipal bodies in Assam was 14, as in the preceding year; of these, three were first-class, and six were second-class municipalities, two were stations, and three were unions. In only one town, Sylhet, does the population exceed 10,000; in six of the larger places the majority of the members are elected. In all the 14 towns the members are divided thus: nominated 92, elected 53, total 145, of whom 96 were non-officials and 49 officials, 114 were Natives of India and 31 Europeans. The total income of the 14 towns decreased from Rx. 23,600 to Rx. 20,700, of which Rx. 10,200 accrued from taxation. The two chief items of taxation were Rx. 4,900 from rates on houses and lands, and Rx. 1,800 from tolls on roads and ferries. Among the other receipts, the larger items were Rx. 3,800 from grants by the Assam.

Municipalities. Provincial Government, and Rx. 2,500 from markets and slaughter-houses. The incidence of municipal taxation was 1¾ rupees per head of the population, ranging from 3½ rupees at Shillong and 2¼ rupees at Gauhati to ¼ a rupee per head at Golaghat. The total expenditure was Rx. 20,500, of which the chief items were Rx. 6,800 on conservancy and drainage; Rx. 2,300 on water supply, and Rx. 5,200 on roads and buildings.

Madras. Madras City. For the municipality of Madras there are 33 members, of whom 24 are elected by 5,500 ratepayers. There were during the year six vacancies, of which five were contested; at these an average of 34 per cent. of the registered electors recorded their votes. The names on the roll of qualified voters represent 1·2 per cent. of the total inhabitants of the city. At 30 meetings of the Commissioners the average attendance of members was 20, or 60 per cent. of the total number of members; twelve members attended less than 12 meetings during the year; and six members lost their seats by absenting themselves from three consecutive general meetings. The total income of the year, apart from loans and Government contributions, was Rx. 144,000, or Rx. 16,000 more than in the preceding year; of the year's total, Rx. 88,000 accrued from taxation, which fell on the population at the rate of 1·94 rupees per head; the principal tax is one of 10 per cent. on houses and lands. No new tax was imposed during the year. The Government contributions fell from Rx. 38,300 to Rx. 18,300; last year's contributions had included special grants of Rx. 20,000 towards the new drainage scheme, Rx. 10,000 towards the cost of incinerators, and Rx. 5,000 towards the cost of conservancy carts. No loan was raised during the year as compared with Rx. 43,200 borrowed for waterworks in the previous year. The total expenditure came to Rx. 156,000, of which Rx. 34,700 were spent on water supply and drainage, Rx. 40,800 on hospitals, sanitation and conservancy; Rx. 35,400 on streets, roads, and other public works; and Rx. 20,600 on the interest for and repayment of debt. The extension of the water supply has been sanctioned at a cost of Rx. 67,500; and new drainage works are making progress. The quantity of water supplied was 22 per cent. more than in 1895–96. Water from the Red Hills Lake, the present source of supply for the municipality was found by the analyst to be appreciably better in quality than in the previous year. The registered municipal death-rate was 35·4 per mille, against 37·6 in 1895, and 46 in 1894. The mean of the previous decade was 38·7. Food prices were high, though fairly steady until the end of the year when a great rise occurred. The outstanding debt of the municipality amounts to Rx. 327,000, against which must be set the sinking fund, which now amounts to Rx. 115,000. The payments to the sinking fund during the year were Rx. 6,200, and the charge for interest was Rx. 15,400.

Interior of the Madras Presidency. The number of municipalities in the interior of Madras was 58, or two more than in the previous year. The councils were partly elective in 34 of these towns, 3 per cent. of the population being registered as voters. In 37 towns the councillors elected their own chairman, and in only five cases did they choose an official. The average attendance of councillors at meetings was 53 per cent., somewhat smaller than in the previous year. There are 933 municipal councillors in all, divided thus:—

Elected - -	386	Non-officials -	730	Indians - -	784
Nominated -	547	Officials - -	203	Europeans and Eurasians -	149

Out of 108 elective seats vacated during the year, 59 were contested, and at the elections 60 per cent. of the voters came to the polls. There was an increase of 12 per cent. in the total municipal income, which came to Rx. 321,000; of this, Rx. 154,000 came from taxation, the chief items being Rx. 68,000 from rates on lands and houses, Rx. 37,400 from tolls; and the average incidence of taxation was 14½ annas per head of the population. The chief sources of miscellaneous receipts were fees and revenue from markets and slaughter-houses, Rx 18,000, and grants from Government, local funds, and other sources, Rx. 61,700. The total expenditure of the year was Rx. 307,000, of which the chief items were public works, Rx. 105,000, including

drainage and water supply, Rx. 57,800; education, Rx. 33,900; medical services and sanitation, Rx. 94,900, including Rx. 61,000 spent on conservancy; lighting and miscellaneous purposes, Rx. 24,000. The outstanding public debt of all municipalities was Rx. 128,000, after deducting moneys at credit of the various sinking funds; loans raised during the year amounted to Rx. 35,800. Water supply schemes were completed during the year at the towns of Dindigul and Trichinopoly, and were approaching completion at the towns of Conjeveram, and Kurnool. MUNICIPALITIES.

The Municipality of Bombay is administered by a committee consisting of 72 members, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. Eighteen of the members were Europeans, and the rest were Indians; among the latter 16 were Hindoos, 24 were Parsees, and 12 were Mahomadans. Bombay. Bombay City.

Plague was epidemic in Bombay from October to the end of the year, and had a disastrous effect on the trade of the city and on the municipal revenue; a considerable proportion of the inhabitants fled from the city, and business of all kinds was paralysed for a time. The total income of the municipality, exclusive of loans, was Rx. 620,000, or Rx. 54,000 less than in the previous year; of this total, Rx. 521,000 accrued from municipal taxation and market receipts, the balance being contributions from Government and receipts from other property. The chief items of revenue were the general tax, which yielded Rx. 185,000, the water tax, which yielded Rx. 140,000, and the town duties, which yielded Rx. 66,000. The largest decrease was under the head of "town duties," and was due to the slackness of trade during the plague epidemic. No new tax was imposed, and no rate was enhanced during the year. The total expenditure of the year came to Rx. 794,000, of which Rx. 71,000 were from borrowed money. The chief items of outlay from current revenue were Rx. 141,000 on the public health department, Rx. 40,000 on operations against plague, Rx. 142,000 on streets and other public works, and Rx. 206,000 on the interest and sinking fund of the city debt. The expenditure from loan funds consisted of Rx. 71,000, of which the largest item was Rx. 47,000 for sewerage works. The quantity of water in the storage lakes was abundant; but the heavy floods of July carried away the main channel, and the water supply of Bombay was cut off for 18 days. The death-rate of the year in Bombay was 40·71 per mille, against 30·52 in the previous year, and 30·64 the average of five years. Of the excess mortality, nearly one-half occurred in the month of December. Deaths from plague were reported to have been 79 in September, 1,271 in December, and 1,936 in the four months, September to December, 1896. The outstanding debt of the city at the end of the year was Rx. 3,898,000, against which may be set Rx. 540,000 invested in behalf of sinking and other funds belonging to the municipality.

The total number of municipalities in the interior of Bombay was 168, or two less than in the previous year. The population within municipal limits was 2,251,000, besides the population of Bombay city. The total number of municipal commissioners in these towns was 2,368. Interior of the Bombay Presidency, 1896-97.

The constitution of the committees was much the same as in the preceding year, namely:

Elected - 896	Officials - - 655	Asiatics - 2,198
Nominated - 1,472	Non-officials - 1,713	Europeans - 170

Everywhere the requisite number of quarterly meetings was held; and in many towns the number of meetings was considerable; Ahmedabad again headed the list with 55 meetings in the year. The attendance was not quite so good as in the previous year; but in most towns the average attendance of members exceeded one-half the total strength of the committee. The income of the municipalities, excluding loans, was Rx. 500,000, as compared with Rx. 536,000 in the preceding year. The incidence of municipal taxation ranged from 1½ annas per head in the southern division to 23 annas per head of the municipal population in the central division. Rx. 216,000 of the taxation was raised by octroi duties, and Rx. 147,000 by other taxes. There were no changes in the systems of urban taxation; and the shrinkage of municipal revenues, especially

MUNICIPALITIES.

in the octroi receipts was attributed to the famine. The total expenditure was Rx. 593,000. The outlay on public health and convenience rose from Rx. 306,000 to Rx. 325,000. Water supply works and improvements were prosecuted during the year at Sukkur, Karachi, Yeola, Sholapur, Gadag, Bijapur, Nargund, Pen, Ahmedabad, Surat, Dhuliá, and Húblí; while similar works were under discussion for Kaira, Borsad, Dakor, Malegaon, Belgaum, Godhra, and Dohad. Drainage works were being prosecuted at Ahmedabad, Nasik, Poona, Pandharpur, Halyal, and Gadag.

BERAR.

The number of municipalities in Berar was 12, as in the previous year, and in eight of these towns the majority of the municipal committees are elected by the ratepayers.

There were altogether 175 members of these committees, divided thus:

Elected	93	Non-officials	113	Asiatics	147
Nominated	82	Officials	62	Europeans	28

The proportion of municipal electors to the total population of the town ranges from half per cent. in Amraoti to 2½ per cent. in Basim. In eight municipalities there occurred 36 vacancies, for which 92 candidates presented themselves. Out of 5,763 registered voters, 1,953, or 34 per cent. of the electors, recorded their votes; and the proportion of voters going to the poll ranged from 10 to 72 per cent. in the different towns. No committee held less than 11 meetings during the year, and eight committees held more than 20 meetings; the average proportion of members present at a meeting was larger than last year and exceeded one half for all municipalities except one. The total income of the municipalities was Rx. 25,100, of which Rx. 5,800 accrued from markets, Rx. 5,400 from taxes on trades and professions, Rx. 1,500 from water-rates, Rx. 1,700 from conservancy tax, and Rx. 3,400 from municipal property and institutions. Municipal income, apart from loans and grants, ranged from 10 annas in Ellichpore to 2½ rupees per head of the population in Buldana. Taxation, apart from other income, ranged from 3¼ annas per head in Shegaon to 25 annas per head of the population in Buldana. The total expenditure was Rx. 24,100, of which Rx. 2,700 were spent on water supply, Rx. 14,300 on public health and convenience, Rx. 1,000 on public safety, Rx. 1,700 on public instruction, Rx. 15,000 on repayment of loans, and Rx. 2,100 on administration and collection charges. Eleven out of the 12 municipalities contribute towards schools or colleges, and six towards libraries; five spent money on fire establishments, and only five spent more than Rx. 100 on water supply.

DISTRICT BOARDS.

DISTRICT BOARDS. General.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; but in most provinces district committees had for many years given assistance or exercised control in the administration of local roads, local hospitals, and local schools. In all the more advanced provinces district boards are now constituted under different enactments. In Madras, the boards have the power of proposing local taxation, and in Bengal they are empowered to decide at what rate, within the legal maximum, the road cess shall be levied in each district; but for the most part the district boards do not possess powers of taxation; they administer funds, or the yield of specific imposts, made over to them for expenditure on roads, schools, hospitals, and sanitation, within their jurisdiction. In most provinces the district boards delegate much of their detailed work to sub-divisional, or minor boards, which are constituted under the law, and are responsible for subdivisions or parts of a district. A review by the Government of India on the working of District Boards in India during the past nine years will be found in the Appendix to this Statement.

Bengal.

In Bengal there were 38 district boards and 104 local boards, or one more local board than in the previous year. On the district boards were 794 members, of whom 325 were elected by the local boards; on the local boards were 1,255 members, of whom 418 were elected. Out of the total number of 2,049 members,

1,631 were non-officials and 1,752 were Indians. On the district local boards sat 900 landholders and planters and 518 lawyers; these two classes thus composed 85 per cent. of the non-official members. During the year general elections for these boards were held in six districts; but they did not "arouse any general interest." In the year 1896-97 each district board held on the average more than 15 meetings. The average attendance at each meeting was 11 members, or rather more than in the preceding year. The local boards held somewhat fewer meetings than in 1895-96; but the average attendance was nearly six members, which showed more regularity than in 1895-96. The number of meetings that had to be adjourned for lack of a quorum was 54 for district and 182 in the case of local boards; this was an improvement on the preceding year's figures. [illegible] BOARDS

The Bengal boards enjoyed during the year an income of Rx. 727,000, of which the largest items were road cess, Rx. 377,000; contributions from provincial funds, Rx. 52,000; cattle pound fees, Rx. 45,900; receipts from ferries and other similar sources, Rx. 156,000; and loans, Rx. 60,000. The expenditure of the year was Rx. 709,300, of which the chief items were roads, bridges, and waterways, Rx. 402,000; education, Rx. 120,200; hospitals, &c., Rx. 21,200; and famine relief Rx. 28,700. The expenditure on sanitary improvements rose from Rx. 9,900 to Rx. 18,600, of which Rx. 15,100 were spent on water supply.

North-West Provinces and Oudh.

In the North-West Provinces and Oudh there were four district committees and 44 district boards, as in the previous year. The boards consisted of 1,531 members, who were divided as follows:—

Elected - -	1,249	Indians - -	1,468
Nominated -	282	Europeans -	63

The total expenditure of the boards and committees during the year was Rx. 367,000, against a total income of Rx. 376,000; of this latter Rx. 189,000 came from local rates; the contributions from provincial and other revenues amounted to Rx. 122,000.

The district boards held on an average 12 meetings each, as did also the district committees. The average attendance at meetings was 12 members at the Boards and 10 members at the Committees.

The main heads of expenditure by the boards were roads and other public works Rx. 175,000; education Rx. 130,000; hospitals, vaccination, &c., Rx. 52,000. The public works fund was employed as far as possible on undertakings likely to benefit the poor in a year of scarcity and famine, and in some districts the members of boards gave useful assistance in the repairing of roads. The non-official members took much active interest in the progress of schools under the boards. Much was done to improve the sanitary surroundings of villages in the course of works undertaken for the relief of famine.

Punjab.

In every district of the Punjab except Simla there was a district board constituted under Act XX. of 1883; in most districts there were subordinate local boards acting under the district boards; in two districts these local boards were abolished during the year. In 12 districts, most of which are situate on or near the frontier, the district boards are composed entirely of nominated members, and in other 16 districts the members are in part nominated or *ex officio*, and in part are elected delegates from the local boards. Of the 66 local boards 11 are filled up wholly by nomination, and 55 partly by nomination and partly by election. Out of a total of 2,489 members the number of elected members in the whole province was 1,148, and of nominated members 1,341. The number of non-officials on the boards was 3,148, and the officials were 341. Elections to the local boards were held in 11 districts during the year; out of 195 vacant seats, concerning which returns are given, 11 were contested; and on 6 occasions only was serious interest taken in the elections; at four of these contests 56 per cent. of the registered electors voted at the polls. Five out of the 31 district boards held less than four meetings during the year, which is the minimum number of meetings required by the rules; in 19 districts the average attendance at meetings of the district boards was more than half the number of members. Of the 66

DISTRICT BOARDS.

local boards only 27 held the prescribed number of six or more meetings, while four local board held no meetings at all; at 32 of the local boards the average attendance of members exceeded half of the whole strength; the attendance was thus less regular than in the previous year. The local officers again report that the district boards have on the whole worked satisfactorily; in the Hissar district, where famine prevailed, the district board was of the greatest service in helping to find out the condition of the people in the different tracts, in ascertaining the effects of different schemes of famine relief, and in suggesting advantageous additions to the programme of relief works. The local boards have, save in a few districts, been of little use.

Excluding suspense items, the year's income of all the boards came to Rx. 288,400, of which the chief items were Rx. 222,000 from local rates, and Rx. 9,500 from school fees. The total expenditure of the year was Rx. 326,500, of which the chief items were: education, Rx. 65,100; hospitals, vaccination, and other medical or sanitary charges, Rx. 34,900; famine relief, Rx. 30,800; and roads and other public works, Rx. 91,300. Of the last-mentioned grant, Rx. 13,700 was spent on water supply and drainage. No district or local board has contracted any debt.

Central Provinces.

In every district of the Central Provinces except the backward tract of Mandla, district councils and local boards, subordinate to those councils, have been established. There are 17 district councils and 53 local boards. The total number of members on these bodies was 1,164, divided thus:—

Elected members -	869	Non-officials	1,031	Asiatics - -	1,136
Nominated or *ex officio* - -	295	Officials -	133	Europeans or Eurasians -	28

A fair amount of interest was taken in the 27 elections held during the year, but the interest seems to have varied; for instance it was great in the Saugor District, where a large proportion of old members lost their seats after contested elections, and over 50 per cent. of the electors came to the polls; while in the Nimar District only 4 per cent. of the electors voted. The number of meetings held was 456, as compared with 490 in the previous year. Of 295 officials the average attendance was 100, or 34 per cent., and of 1,031 non-officials the average attendance was 381, or 33 per cent. The maintenance and construction of metalled roads is undertaken by the Provincial Public Works Department in behalf of the councils, which, however, advise upon road projects within their jurisdiction. Education is one of the most important matters with which the councils deal; they have charge of all primary and many middle schools, and they administer the grant-in-aid funds available for rural schools. The income of the councils and boards was Rx. 89,400, of which Rx. 35,400 were yielded by local rates, Rx. 17,200 by cattle-pound fees, and Rx. 15,000 by contributions from provincial funds. The main items of their expenditure were Rx. 47,000 on roads and other works, Rx. 27,800 on schools, Rx. 6,500 on famine relief, and Rx. 8,800 on hospitals and vaccination.

Assam.

In Assam there are 19 local boards, constituted under the Assam Local Rates Regulation of 1879. The total number of members on the district boards was 372, of whom 57 were officials and 315 non-officials; 142 were elected, and 229 were natives of India. The boards enjoyed for the year 1896–97 an income of Rx. 123,000, or a very little more than in the previous year. The local rates yielded Rx. 63,800, or Rx. 900 below their yield in 1895–96. The boards spent Rx. 114,500; 64 per cent. of the total expenditure was devoted to public works, 18 per cent. to education, and 7 per cent. to sanitary and medical objects. The outlay on village sanitation was Rx. 6,600.

Madras.

In Madras there were 21 district boards, with not less than 24 members on each, of whom one-half are elected by the taluk or subdivisional boards. The members of 80 taluk boards are appointed by Government from the residents and ratepayers of the taluk. On all the boards there were 1,782 members, of whom 1,244 were non-officials and 538 were officials; out of the latter number 75 were members elected by taluk boards to be their representatives on the district boards. Below the taluk boards were 367 village unions, which were

occupied chiefly with local sanitation and the management of elementary schools, markets, and other local institutions entrusted to them by the taluk boards. The district boards held 232 meetings, at which the average attendance was, as in the preceding year, 16 (11 non-officials and five officials), out of an average strength of 31 members. The taluk boards held 1,047 meetings, at which the average attendance was eight members (six non-officials and two officials), out of an average strength of 14 on each board. The village unions held 4,962 meetings, or 94 more than in the previous year. The Local Government considered that the "administration of local affairs during the year had continued to be on the whole satisfactory, except in three districts where it was far from efficient." DISTRICT BOARDS.

The income of all the boards during the year was Rx. 824,000, or Rx. 14,000 more than in the previous year. The chief sources of income were: local rates, tolls, and taxes, Rx. 592,000; grants from provincial funds, Rx. 53,000; school fees, Rx. 22,000. The expenditure of the year was Rx. 810,000, of which Rx. 438,000 were spent on roads, ferries, and other public works; Rx. 150,000 on medical and sanitary purposes, and Rx. 113,000 on education. Out of the public works outlay, Rx. 52,000 were spent on new roads, and Rx. 266,000 were spent on maintaining existing roads. The expenditure on public works was Rx. 6,200 more than in the previous year. The length of new roads made during the year was 148 miles, and of roads repaired by local boards was 21,080 miles. The expenditure on sanitation, as distinguished from hospitals and vaccination, was Rx. 53,300, of which Rx. 11,200 were spent on improving the water supply.

In Bombay there were 23 district and 203 taluk (or subdivisional) boards: all these boards are partly elective, except in three backward districts and seven exceptional subdivisions. There were altogether 3,499 members of all boards, classified very nearly as in the preceding year, namely:— Bombay.

	Per Cent.		Per Cent.		Per Cent.
Elected -	50	Non-officials -	79	Asiatics -	94
Nominated -	50	Officials -	21	Europeans -	6

The total number of meetings held during the year was 1,201 as compared with 1,348 in the previous year, and the average attendance of members ranged from 47 to 64 per cent. The gross income of the boards was Rx. 473,000. The total expenditure of the boards came to Rx. 514,000, or Rx. 23,000 more than the preceding year; the chief heads of expenditure were education, and public works. In the last category were included Rx. 47,000 spent on water supply. The incidence of local (as distinct from municipal) taxation ranged from $1\frac{11}{12}$ annas per head in the southern division to 3 annas in the northern division and $3\frac{1}{3}$ annas in Sind, per head of the total population.

In Berar there were six district and 21 taluk (or subdivisional) boards. Each taluk board consists of 18 members, of whom 12 are elected by the people. The members of the district boards are, for the most part, elected by the taluk boards. The members of the 27 boards were divided thus:— Berar.

	Total.	Nominated.	Elected.	Non-officials.	Officials.	Native.	European.
District Boards - - -	154	32	122	120	34	147	7
Taluk Boards - - -	376	133	243	345	31	376	-

All the district boards held more than the minimum number of four meetings prescribed by the rules; 20 boards held eight or more than eight meetings, and one taluk board held less than the prescribed number of eight meetings. Seventy-two vacancies occurred on the taluk boards during the year, for which 145 candidates came forward. Out of 27,491 persons entitled to vote, 2,555, or $9\frac{1}{3}$ per cent., recorded their votes; in the previous year the percentage of voters to electors was $10\frac{1}{2}$. The income of the local boards was Rx. 65,600, of which Rx. 27,000 accrued from provincial rates and Rx. 8,200 from taxes on trades or professions; Rx. 4,100 from school fees; and Rx. 10,600 from provincial contributions. The expenditure was Rx. 63,500, of which Rx. 20,300

DISTRICT BOARDS.

were devoted to education, Rx. 3,700 to village conservancy, Rx. 38,000 to the improvement of water supply, Rx. 4,000 to the improvement of village sites, and Rx. 21,900 to roads and other public works.

PORT TRUSTS.

PORT TRUSTS.

The custody of harbours and the administration of harbour and shore affairs are placed by law in the hands of Port Commissioners, who are appointed for each of the chief Ports. Members of these Port Trusts are for the most part appointed by the Local Governments, and are usually representative of the various Indian and commercial interests of the place. Port trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for Port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The Local Governments and, so far as can be judged, the public, are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of district or local boards, receive any fees for the performance of their local duties.

Bombay.

In the year 1896–97 the income of the Bombay Port Trust was Rx. 462,000, or 4½ per cent. below the income of the preceding year. The decrease in receipts was attributed to the failure of crops and to the plague epidemic, which combined to cause a shrinkage in the import and export trade. Dock and wharfage fees yielded Rx. 236,000 against Rx. 253,000, and warehouse rents Rx. 180,000 against Rx. 194,000, in the previous year. The expenditure was Rx. 480,000, of which the chief items were Rx. 226,000 for interest and repayment of debt, and Rx. 124,000 spent on working and maintaining the wet docks. There was a considerable decrease, as compared with recent years, in the exports of grain, oil seeds, with some decrease in cotton exports; there was also decrease in imports of piece goods and sugar; the only item in which a large increase of trade occurred was in the importations of petroleum. At the close of the year the outstanding debt of the Port Trust was Rx. 5,185,000, of which Rx. 3,020,000 were due to Government; while the value of the assets and property of the Trust, after being written down, stands at Rx. 5,548,000. Fewer steamers entered the Port than in the previous year, and the total steam tonnage entered during the year was 1,997,000 tons, as compared with 2,156,000 tons in 1895–96.

Calcutta.

The income of the Calcutta Port Trust was Rx. 540,000, or Rx. 47,000 more than in the previous year, and the expenditure was Rx. 538,000, inclusive of the Kidderpore Dock Account. The new docks were opened in September 1892; they have cost Rx. 2,877,000, which sum raises the total outstanding Port Trust debt to Rx. 3,985,000 against which may be placed Rx. 162,000 at credit of the sinking fund. The special tolls, imposed to meet the charges on account of the new docks, yielded Rx. 91,500. The largest items of Port expenditure were Rx. 205,000 for interest and sinking fund of the debt and Rx. 110,800 for working expenses. The receipts from the new docks rose from Rx. 37,300 to Rx. 61,600 while the cost of working and repairs rose from Rx. 43,300 to Rx. 53,800. The charge for municipal tax on the docks and for interest on the docks loan was Rx. 129,500, as in the previous year. The deficit on the new docks was thus Rx. 121,700. The number and tonnage of sea-going vessels entering the Port during the last five years has been:—

——	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.
Number of vessels -	1,065	991	1,029	1,027	1,057
Gross tonnage - -	2,642,249	2,567,440	2,735,975	2,885,528	3,004,166

In the last year 939 of the vessels were steamers, with a tonnage of 2,821,865 tons, as compared with 118 sailing vessels, with a gross burden of 182,301 tons. PORT TRUSTS.

The year 1896–97 showed a decrease of 23,000 tons, or nearly 6 per cent. in the tonnage of the seagoing vessels visiting the Port of Rangoon; but the aggregate tonnage was larger than in previous years except 1895–96. The number of steamers with a tonnage of over 3,000 tons is increasing. The ordinary revenue of the Port Trust was Rx. 98,800, showing an increase of 3 per cent., as compared with 1895–96, while the expenditure increased 3½ per cent. The increase of expenditure was under the heads of "buoys and moorings" and "river police." The total net charge on account of interest on the Port debts was Rx. 3,100; Rx. 5,000 of debt was paid off during the year. Interest paid on the port loans has come down from Rx. 4,500 in 1890 to Rx. 3,000 in 1896. Rx. 21,900 were spent on repairs and extensions of works of improvement. Eight accidents to shipping took place during the year in the harbour and approaches; in one case the S.S. "Asama" grounded, when in pilotage charge and became a total wreck. In no other case was material damage done. Rangoon.

At the Madras Port there was a decrease of 4½ per cent. in the total foreign trade; exports of coffee, oil-seeds, indigo, and cotton, all were below the figures of the preceding year; exports of sugar increased. No further advances were made to the Madras Harbour Trust during the year; the Trust repaid Rx. 10,000 on account of previous advances paid, and Rx. 21,000 on account of interest. The harbour works had been practically finished in the previous year. Madras.

The income and expenditure of the Karachi Port Trust were respectively Rx. 82,000 and Rx. 73,000, as compared with Rx. 99,000 and Rx. 72,000 in the previous year. The decrease was due to the shrinkage of trade caused by famine and plague. The principal improvements of the year were the dredging operations for deepening the port entrance and channel, on which Rx. 15,000 were spent. The tonnage entering the port was 21 per cent., below the average of the preceding three years. The exports of grain were 117,000 tons, as compared with 435,000 tons in the previous year. Cotton exports and petroleum imports were the only items that showed an increase over the previous year's trade. Karachi.

There are other minor Ports at which smaller sums are raised yearly and expended on improvements. The value of the total foreign trade of the five principal Ports during the past four years is set forth below :—

NAME OF PORT.	Value of the Total Foreign Trade, in Merchandise only, excluding re-exports, during the Year			
	1893-94.	1894–95.	1895-96.	1896–97.
	Rx.	Rx.	Rx.	Rx.
Bombay - - - - - -	67,999,000	63,159,000	65,800,000	60,017,000
Calcutta - - - - - -	69,927,000	71,319,000	72,317,000	74,761,000
Rangoon - - - - - -	10,799,000	10,431,000	12,303,000	11,259,000
Madras - - - - - -	10,304,000	10,986,000	10,735,000	10,261,000
Karachi - - - - - -	11,040,000	10,641,000	10,170,000	8,372,000

STATEMENT showing the Number of Municipalities in India, their Receipts and their Expenditure, for the Year 1896–97.

	Bengal.		North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.		Bombay.		Minor Provinces.	TOTAL.
	Presidency Corporation.	District Municipalities.						Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.		
Number of Municipalities	1	148	104	148	42	53	14	1	57	1	168	20	757
Population according to the Census of 1891	681,560	2,708,974	3,249,402	2,253,831	854,806	688,899	84,727	452,518	1,700,853	821,764	2,251,927	283,344	16,632,605
Receipts:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Octroi	–	–	231,128	269,379	–	69,300	–	–	–	95,603	216,362	25,153	906,925
Other Taxation	431,878	253,566	84,327	21,774	174,354	24,280	10,156	88,034	154,098	424,563	146,983	2,888	1,816,901
Sources other than Taxation (excluding Deposits and Advances).	72,895	59,948	83,130	122,108	241,342	31,865	10,399	50,952	122,190	104,082	136,172	12,931	1,048,014
Loans	200,000	49,050	13,150	19,914	–	20,425	–	–	37,800	100,000	58,363	–	498,702
TOTAL (1896-97) Rx.	704,773	362,564	411,735	433,175	415,696	145,870	20,555	138,986	314,088	724,248	557,880	40,972	4,270,542
TOTAL (1895-96) Rx.	671,514	387,448	526,239	459,669	398,363	130,916	23,418	207,245	275,236	778,671	542,130	42,693	4,443,542
Expenditure:													
Cost of Collection and Administration	52,137	35,990	49,446	63,833	41,330	33,278	1,572	11,521	21,457	52,360	106,147	8,478	477,549
Public Health and Conveniences	317,973	255,442	296,481	204,988	261,034	86,437	16,145	104,166	201,001	361,617	324,692	20,468	2,450,444
Public Safety	48,383	19,545	64,754	67,319	32,587	1,450	877	7,915	12,623	102,114	28,762	4,620	390,949
Interest on Debt	114,320	11,105	31,775	14,808	21,800	5,513	55	15,381	4,907	172,021	17,399	1,854	410,938
Miscellaneous	36,624	35,924	125,136	104,351	53,113	24,834	1,697	10,846	47,043	59,716	115,793	10,099	625,176
TOTAL (1896-97) Rx.	569,437	358,006	567,592	455,299	409,864	151,512	20,346	149,829	287,031	747,828	592,793	45,519	4,355,056
TOTAL (1895-96) Rx.	633,899	387,698	537,305	459,705	405,514	145,687	22,801	170,893	244,903	765,790	572,732	45,353	4,392,265

SANITATION.

Sanitation. European troops.

The health of the European troops in India was better in 1896 than in the preceding year. The total admissions into hospital were in the ratio of 1,387 per 1,000 of the average strength of 70,484, against 1,462 in 1895; the daily average sick-rate remained the same, viz., 94, and the death-rate was 14·84, as compared with 15·26. The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 37 and 17 per cent. respectively of the total sickness. Enteric fever was the chief cause of mortality, yielding a death-rate of 6·31 per 1,000, as compared with 6·72, the ratio of the previous year. This fever alone caused nearly 43 per cent. of the total deaths. The liability of young and unacclimatised soldiers to enteric fever is again shown in the year's statistics, for among troops between the ages of 20 and 24 the death-rate from this disease was 9·22 per 1,000, while among men between the ages of 25 and 29, and between 30 and 34, the mortality equalled 3·24 and 2·18 per 1,000 respectively; and whereas among men of less than one year's service in India the death-rate from enteric fever was 14·40 per 1,000, among men of four and five years' service it was 3·18, and among men of five to ten years' service the rate was 2·44 per 1,000.

Cholera was more prevalent among the European troops in 1896 than in the previous year; the fatal cases rose from 32 or 0·45 per 1,000 of strength in 1895, to 63, or 0·89 per 1,000. Of these, 33 occurred among troops in the Bengal Command; six in the Madras Command; 21 in the Bombay Command, and three in the Punjab Command.

The loss to the whole European Army in India by invaliding during 1896 amounted to 1,966 men, equal to 27·89 per 1,000 of strength, against 1,663, or 23·41 in 1895. The proportion of invalids to strength was highest in the Madras Command, viz., 33·2; in the Bengal Command the proportion was 29·2, and in the Bombay and Punjab Commands, 24·1 and 25·7 respectively. Out of the total number invalided, 39 per cent. were discharged as unfit for further service, being 6 per cent. higher than in 1895. As regards the influence of age and length of residence in India upon invaliding, 62 per cent. of the number invalided were under 25 years of age, against 66 in 1895, while 40 per cent. were of less than two years' service, and 85 per cent. were of less than five years' service. In the European Army in India, 82 per cent. of the total strength had seen less than five years' service.

Native troops.

There was less sickness and mortality among the Native troops in 1896 than in the preceding year. On an average strength of 128,286 the admissions into hospital were in the ratio of 763 per 1,000, against 794 in 1895; the daily sick-rate was 29, a decrease of one per 1,000, and the death-rate was 10·20, against 11·60. Ague continued to rank first among the causes of admission, and again yielded 36 per cent. of the total. Respiratory diseases, as usual, were the chief causes of death, and represented a ratio of 3·72 per 1,000 of average strength, against 4·87 in 1895. Of these diseases pneumonia alone accounted for 403 deaths, or 3·14 per 1,000 of strength, a ratio about five times as high as that among European soldiers from this disease. From intermittent and remittent fevers there were 198 deaths, equal to 1·55 per 1,000. From these two causes, pneumonia and malarial fever, nearly half of the total deaths were recorded. From cholera the death-rate was 0·69 per 1,000, against 0·41 in 1895. Fevers of all kinds were the cause of 16 per cent. of the total deaths, while among the European troops 46 per cent. of all the deaths were from fevers. From ague, remittent and simple continued fevers, the deaths among the Native troops yielded a ratio of 1·58 per 1,000; while among the European troops the proportion was only 0·50. On the other hand, the death-rate from enteric fever among the Native troops was only 0·04 per 1,000, as compared with 6·31 among the European troops.

Jails.

On the whole the health of the prison population in India improved during 1896. The ratios of admission into hospital and daily average sick per 1,000 of strength were 939 and 39 respectively, against 1,006

SANITATION.

and 43 in 1895. The death-rate rose from 26·59 per 1,000 to 27·79 The average rate of mortality ranged from 72·11 in the Central Provinces to 15·68 in the Punjab. The death-rate was higher in six provinces than in the previous year, the most noticeable case of increase being the Central Provinces, which recorded a jail death-rate of 72·11 against 55·96 in 1895. The mortality was next highest in Assam (50·86), but in none of the other provinces except Bombay (31·89) did the death-rate reach 30 per 1,000. Bengal returned a jail death-rate of 25·78, the lowest on record in that province, and nearly two per 1,000 below the rate of 1895. The increase in the general death-rate was mainly due to the rise in the mortality from cholera from 93 to 142. Dysentery and pneumonia were the chief death causes, the former accounting for 562 and the latter for 445 of the total 2,871 deaths. Of the total number of prisoners discharged during the year (188,244) 19·2 per cent. had lost weight, and 57·6 per cent. had gained weight.

General population.

Births were registered throughout all the 10 provinces during 1896. The highest mean provincial birth-rates recorded were:—the Punjab, 43·0 per 1,000 of population; Berar, 38·3; Bengal, 38·03; Bombay, 36·76; North-Western Provinces and Oudh, 35·40; and Assam, 33·69. In the remaining provinces the rates ranged between 32·27 in Burma, and 26·62 in Coorg. In eight provinces the birth-rates were higher than in the previous year, and in two they were lower. The birth-rates exceeded the death-rates in seven provinces, the excess per 1,000 varying between 11·5 in the Punjab, and 0·19 in Coorg. The year 1896 was less healthy than 1895, and the death-rate for all the provinces rose from 28·94 per 1,000 of population in that year to 32·05. The highest death-rates were registered in the Central Provinces (49·31) and Berar (43·8). In the remaining eight provinces the rates ranged from 36·33 in Assam to 20·6 in Madras. In all the provinces except Coorg and Berar the death-rates were higher than in 1895. The greatest increase occurred in the Central Provinces and the North-Western Provinces and Oudh, where the death-rates rose from 36·75 and 29·13 respectively to 49·31 and 33·32.

From all the chief diseases, except dysentery and diarrhœa, more deaths were registered than in 1895. From cholera there were 469,667 deaths in 1896, being in the ratio of 2·21 per 1,000 of population, against 310,797, or 1·45, in the previous year. The increase was spread over eight of the provinces, the exceptions being Burma and Assam. The death-rate from cholera was highest in the Central Provinces, 5·58 per 1,000, which was a great increase on the rate of the previous year of 1·63. Berar came next, with 4·3, a ratio identically the same as that recorded in the previous year.

From small-pox the deaths rose from 43,328, or 0·20 per 1,000, in 1895 to 132,784, or 0·62. All the provinces contributed to the increase, but especially the North-Western Provinces and the Punjab. In the former the deaths rose from 1,968, or 0·04 per 1,000, to 42,771, or 0·91, and in the latter from 8,334, or 0·41, to 45,084, or 2·19, which was the highest ratio recorded by any province.

Fever deaths rose from 4,217,862, or 19·80 per 1,000 of population, to 4,531,833, or 21·36. This shows an increase in 1896 of 313,971 deaths, in which all the provinces, except Madras, Coorg, and Berar, participated. The increase in fever mortality was most marked in the Central Provinces, Bengal, and the North-Western Provinces and Oudh, the fever death-rates of which rose from 23·30, 22·90, and 23·31 respectively, in 1895, to 29·55, 24·76, and 25·71 in 1896.

The total number of deaths returned under dysentery and diarrhœa was 235,235, or 1·11 per 1,000, against 237,034, or 1·16, in 1895. In six out of the 10 provinces the mortality under this head was less than in the previous year; but only in the Central Provinces was the increase at all marked, the death-rate being 3·41, as compared with 2·14 in 1895.

Vaccination.

The total number of successful vaccinations performed during 1895–96 was 7,309,087, being an increase of 85,496 on the previous year's work. Over $2\frac{3}{4}$ millions (2,892,039) of the total cases were under one year of age, and nearly $3\frac{1}{4}$ millions (3,234,392) were between the ages of one and six years. The proportion of population protected by the year's operations ranged from 55·45 per 1,000 in Coorg, and 43·31 in Assam, to 28·87 in the North-Western Provinces and Oudh. In the vaccination of infants the best results were

obtained from Berar, Bombay, and the Punjab, where 66·8, 59·1, and 58·5 per cent., respectively, of the children born during the year, estimating the annual births at 40 per 1,000 of population, were protected against small-pox. In the Central Provinces the percentage was 47·5, and in the remainder it ranged from 30·7 in the North-Western Provinces and Oudh to 18·6 in Coorg, and 20·4 in Bengal. SANITATION.

Some of the important sanitary works which have been either completed, in progress, or under consideration during 1896, were as follows:—In Calcutta further progress was made in the improvement of bustees, or clusters of Native huts. The supply of filtered water was increased, and the average daily consumption is now equal to 41·42 gallons per head of population for the town proper, and 10·94 gallons for the suburban area. In the course of the year the distribution pipes were extended about 1½ miles, bringing the total length up to 312 miles, and the total number of premises connected had reached 27,184. The supply of unfiltered water slightly decreased, the daily consumption per head of population being equal to 12·47 gallons as compared with 13·43 gallons in 1895. At the close of the year (1896–97) the total length of sewers was a little over 209¼ miles, and the number of premises connected with them was 29,588, of which 448 connections were made during the year. The new drainage project for the municipality was in hand, but the progress made did not come up to expectations owing to the delay in the acquisition of land, which is said to be unavoidable under the present Act. Bengal.

The municipalities of the interior of Bengal spent Rx. 243,008 on sanitation, an increase of Rx. 15,244 on the sum expended in 1895. In addition, the municipalities and district and local boards spent Rx. 126,764 on sanitary works; and a further sum of Rx. 49,413 was contributed by private individuals for the same purpose. The most important works were the completion of the Howrah water supply and the Muzaffarpur drainage schemes, the extension of the Cossipur-Chitpur water supply, additions to the Serampore and Jalpaiguri drainage works, and the construction of drains and the improvement of the water supply at Bhagalpur. The disposal of night-soil continued to receive attention, and in many places improved methods for its disposal were adopted. The Sanitary Board held three meetings in the course of the year, when, among other important matters, they discussed the Berhampore water-supply project, estimated to cost Rx. 23,883, which the late Maharani Surnamoyee generously undertook to defray. The work was in course of completion. A scheme for the supply of drinking water to the town of Cuttack, estimated to cost Rx. 22,500, which, however, had to be abandoned owing to the undertaking being beyond the means of the municipality. An alternative scheme for the supply of drinking water to the town of Midnapore was estimated to cost Rx. 25,000. A scheme was brought forward for improving the drainage of the town of Krishnagar, at a cost of Rx. 3,323. Schemes for remodelling the storm water outfall and draining the suburbs of Calcutta, amounting to Rx. 788,709, were approved by the Board. A scheme for supplying pure water to the town of Chittagong, at a cost of Rx. 23,790, was under consideration.

In the North-Western Provinces and Oudh the municipalities expended over 45 per cent. of their income on water supply, drainage and conservancy. In most of the municipalities possessing water-works, house connections were extended, and the quality of the water was good. Early in the year the Meerut water-works were opened, and those at Dehra-Rajpur were completed. During the year the sanitary condition of Naini Tal was investigated by a strong committee appointed by the Local Government, and a report on the subject was submitted in November. Towards the close of the year orders were issued by the Government for reconstituting the Sanitary Board and converting it from a consultative to an executive body, and arranging, so far as practicable, for the employment of an efficient sanitary agency to co-operate with it, and for the undertaking of a detailed sanitary survey of each district. The Village Sanitation Act, which had been found useful in certain districts to which it had been tentatively extended, was brought into force throughout the provinces. From lists forwarded to the Government by the Sanitary Board it appears that, between 1889 and 1896, 255 drainage projects have been completed by the Irrigation Department at a cost Rx. 117,413, while on the 1st April 1896, North-Western Provinces and Oudh.

SANITATION.

50 works were in progress at an estimated cost of Rx. 43,500, and for the next three years the programme comprises the construction of 104 drainage works at a cost of Rx. 54,681, these being arranged by districts in order of urgency.

Punjab.

In the Punjab the municipal towns spent 21 per cent. of their income on sanitary work. During the year the water-supply schemes of Delhi, Umballa, and Haripur in the Hazara district, were completed, as was also an extension to the waterworks scheme of Simla at a cost of Rx. 33,121. The water-supply project of Bhiwani was undertaken, that of Ludhiana was in progress, and that of Ferozepore under consideration. In Delhi a portion of the drainage scheme was completed, and estimates for the remainder were sanctioned. Drainage projects for Lahore, Mooltan, Gujranwala, Rawalpindi, and Hazro were in progress. Besides these, several works of public utility were constructed by private individuals at their own expense to serve sanitary purposes. The Sanitary Board met twice during the year, when they considered, among other matters, the drainage scheme of the city and cantonment of Ferozepore; statements drawn up by the Officiating Chief Engineer, describing the sanitary conditions of the municipal towns, and suggesting improvements; and the prevalence of fever in the province, specially in swampy and water-logged areas, and the remedies that might be applied.

Burma.

The towns and districts of Burma spent nearly 35 per cent. of their income on sanitary improvements. No important work was undertaken during the year, but municipal committees are reported to have devoted a considerable share of their attention to the subject, and expenditure was incurred on the preliminary experiments and surveys which are necessary before a mature scheme can be elaborated. In Rangoon experiments were carried out throughout the year, with a view to testing the efficiency of tube wells as a permanent source of water supply; and schemes for improving the water supply were being considered by the municipal committees of Bassein and Akyab. The work of the Sanitary Board was again restricted to the provision of suitable sanitary maps of the larger towns.

Central Provinces.

Sanitary reform in the Central Provinces was interrupted during 1896 by scarcity and subsequent famine. The municipalities expended 16 per cent. of their income on conservancy, drainage, and water works. The most important works undertaken or in progress were schemes for supplying water to certain municipalities. The Jubbulpore waterworks were further extended during the year. The Khandwa works were practically completed, progress was being made with those at Wardha and at Harda, and a water-supply scheme on a small scale was under consideration at Hoshangabad. The system of village sanitary inspection books has been introduced in several districts, but little progress was made in filling them in with the information required, owing to the heavy duties falling on civil surgeons in connection with the famine. The Sanitary Board met in each of the four divisions during the year, when proposals and estimates for schemes of sanitary improvement in the various districts were considered.

Assam.

Excluding the towns of Hailakandi, Sunamganj, Karimganj, and Maulvi-bazar, which have no separate incomes of their own, the municipalities, stations, unions, and towns in Assam spent 46·10 per cent. of their income on sanitation. No extensive sanitary work was undertaken during the year, but the waterworks of Shillong were put into an efficient condition and greatly improved, and the experimental well at Sylhet, with attached reservoir and taps, was completed. The sanitary improvements effected in rural tracts were comparativaly unimportant, though some progress was made in the direction of providing a purer water supply by the construction of masonry wells at some of the larger villages. No meeting of the Sanitary Board was held during the year.

Madras.

In Madras Presidency the municipal councils allotted 48·1 per cent., and the district boards 8·4 per cent., of their income for sanitary purposes. "It cannot be said," the Sanitary Commissioner states, "that the rate of sanitary progress in municipalities is such as to render the sanitarian sanguine. Still, progress is apparent, and this being so, it may be assumed that reforms will be introduced in an ever-increasing ratio, as one improvement is almost

necessarily followed by another, with the object of securing full results." During the year the water-supply works at Trichinopoly and Dindigul were completed and opened. Similar works were also in progress at Conjeeveram and Kurnool. Village sanitary inspection report books were in use in all unions in 19 out of the 22 districts of the Presidency at the end of the year, the exceptions being Vizagapatam, Anantapur, and Cuddapah. The Sanitary Board scrutinised plans and estimates for 72 municipal and 87 local fund works, of the aggregate of Rx. 27,933. The Sanitary Engineering Department completed surveys for water-supply or drainage for seven municipalities. Six schemes, costing Rx. 198,954, were submitted to the Sanitary Board, and of these the water-supply of Srirangam, Kumbakonam, Gudiyattam, and the construction of filter-beds, and a service reservoir at Cuddapah, were submitted to Government by the Board, and two schemes for the water-supply of Tuticorin and Bellary were under the consideration of the Board. Schemes were also under preparation for the water-supply of Negapatam and Coonoor, and for the drainage of Cuddapah, and revised estimates for five schemes of water-supply were prepared, costing Rx. 173,657. In improving the sanitation of Madras City, several useful improvements were being carried out. The water-supply was extended, and there was an appreciable improvement in the quality. The long-contemplated scheme for the drainage of the city has been taken in hand, the Commissioners having commenced with the drainage of Mylapur. "It is, however, observed that it will be several years before the drainage scheme is completed, and until this is done, and the proposed improvements in the water-supply are effected, Madras cannot be expected to become a healthy town." SANITATION.

In Bombay Presidency the municipalities allotted 45·29 per cent., and the district boards 17·12 per cent. of their income for sanitary purposes. During the year improvements to the waterworks at Karachi and Sukkur were executed; good progress was made in those at Surat and Yeola; while those at Jalgaon and Dhulia were completed. The experimental portion of the sewerage scheme at Ahmedabad was completed, at a total cost of Rx. 38,350, as were also the surface drainage works at Nasik. The Bombay Village Sanitation Act of 1889, under a modified form, has been brought into force in all the districts except Kanara and Upper Sind Frontier. The Sanitary Board gave advice concerning a large number of projects, including the waterworks of Surat and Rander, Malegaon in Nasik district, Islampur, and Satara, the sewage farm at Ahmedabad, and other sanitary schemes which had been submitted to them. In Bombay City the Shone system of sewerage at Colaba worked uniformly during the year. In other divisions drainage and sewerage works were in progress, while several new works were commenced. The water supply of the city from the Tansa, Vehar, and Tulsi lakes continued to be adequate; structural and other improvements in the reservoirs were being carried out. Bombay.

The municipalities of Berar spent 74 per cent. of their income on sanitary improvement. No new works of any great importance were undertaken during the year, but the Kapsi water-supply scheme for Akola was completed, and the Buldana drainage scheme made progress. The District Sanitary Boards met once at each of the six headquarter stations. They considered the measures taken by local bodies to give effect to the recommendations of the Provincial Sanitary Commissioner, and recorded their suggestion against each incomplete work. Proposals to legalise a system of village sanitation were circulated throughout the province for the purpose of eliciting native opinion on the subject. About 70 replies were received, all objecting to any legislative interference with the customs of the people in connection with sanitary reform. Berar.

CHAPTER II. A.

FAMINE, PLAGUE, AND EARTHQUAKE.

FAMINE, &c.

The progress and prosperity of India have been materially affected during the year 1896–97 by Famine, Plague, and Earthquake; some short account of these disasters must find place in the present Statement, and the narrative will be brought down to the end of 1897.

FAMINE.

Rain-fall.

The crops and the food supply of India depend mainly on rain. Out of a total crop area of 225 million acres, only 30 million acres are irrigated from wells, canals, tanks, and rivers. The main rainy season, or autumn monsoon, lasts from June till October; and the second rainy season, which, on the south coast and in parts of Northern India is very important, falls between November and January. The main food supply of Southern, Western, Eastern, and of great tracts in Northern India, depends upon the autumn rains. In June 1896, the rains began late and with less vigour than usual; in July the rain-fall was below the average save in Western India; August was marked by cyclonic storms which caused floods and did harm; September and October were rainless or gave a very deficient rain-fall over the greater part of India. Eastern Bengal, Lower Burma, Assam, parts of the West Coast, and certain limited sub-Himalayan tracts were the only regions that gave promise of fair rice and other autumn crops without irrigation. The millets, which form the food of the poor over a great part of India, were not quite so bad, as they can ripen with less rain than rice requires. But over nearly the whole of India the yield of the autumn rain-fed crops was expected to be below half the average; over vast areas barely a quarter-crop was hoped for, and in some tracts there would be no autumn crop at all on unirrigated lands. Not only were the autumn crops doomed to failure, but the ground was so hard and dry that tillage for the spring crops was extremely difficult, and the seed, if sown, could hardly germinate without rain. Ordinarily no rain was expected till the end of December, save in the parts of Southern India which are usually watered by the north-east or later monsoon current in November and December. At the end of October the outlook for the whole of India was very dark.

Contrary to expectation, however, frequent showers were vouchsafed during November and December over all Northern, Western, Central, and Eastern India, while the north-east or later monsoon brought heavy rain to the southern and central districts of Madras and Mysore; and showers continued over Upper and Central India during January and February. This rain-fall removed from risk of famine the greater part of Madras, Bengal, Western India, and Rajputana, also those tracts which, like the greater part of the Panjab, derive their main food supply from the spring crops; this rain-fall, moreover, greatly improved the condition of the crops that had been kept alive by irrigation.

Extent of calamity.

Though the position had been saved over large areas by the abnormally favourable rain-fall of November and December, still it was certain by the end of November that famine must be felt over a great extent of country. The actually distressed and affected areas were, according to the lowest estimate:—

In British territory,	227,000	square miles, with	58,400,000 people.
In Native States,	82,500	„ „	6,998,000 „
Total -	309,500		65,398,000

The famine was most severe in the North-West Provinces and Oudh, and in the Central Provinces, where the calamity was seriously aggravated by the fact that in these territories there had been two previous years of short harvest, which had caused distress and necessitated relief operations during 1895–96 in some eight or nine districts of these provinces.

Prices of food.

The price of food had been higher than usual in Northern and Central India before the failure of the autumn rains; but prices had been moderate in Bengal,

Madras, and Bombay up to September 1896. In September prices rose suddenly, and in October famine prices were reached; for instance, in the Panjab and North-West Provinces barley was more than double the usual rate; in parts of the Central Provinces rice was twice as dear as usual; in many parts of these three provinces the price of food reached its maximum in October, and did not afterwards rise higher. In Bengal, Bombay, and Madras the rise in October was less serious, and the highest level of prices was not reached till some months later. In these latter provinces and parts of the Central Provinces the spring crop contributes a far smaller share to the food supply than it does in Northern India. Owing to facilities of communication by railway, prices kept much more nearly at the same level all over India than in previous famines, and nowhere did prices of food reach the high rates which prevailed in some districts during the famines of 1860, 1866, and 1877. FAMINE, &c.

Though the area affected by drought was very large, and the yield of the food crops of the year ranged from two-thirds to below one quarter of the average, still the food-stocks and the supply of the year sufficed to meet the demand in the famine tracts. Burma sent to India, during the famine, 520,000 tons of rice; but from countries outside the Indian Empire no appreciable supplies of food were received. A few shiploads of wheat came from America to Calcutta; two cargoes were bought for the local flour mills; but the remaining cargoes were carried to other countries as the prices offered in India were unremunerative. Though prices were high for India, yet they did not suffice to attract food supplies from other parts of the world. Quotations in "the Corn and Produce Gazette, London," show that, during January to April 1897, the price of Indian corn at New York ranged between 10*s.* and 11*s.* per 480 lbs., or 56 lbs. per rupee. Freights for grain from New York to Calcutta were obtainable in March 1897 at 32*s.* per ton. So maize could probably have been put down in Calcutta at about 30 lbs. per rupee. This grain, which is largely eaten in Northern India, was quoted at 16 to 18 lbs. per rupee in the markets of the Panjab and the North-West Provinces. In the autumn, when a large contribution of maize was sent from San Francisco for distribution to famine sufferers, the grain most thankfully received by the people from the hands of the American missionaries through whom this charitable gift was distributed. But no private trader attempted to bring American maize to India; and the Government, in conformity with the advice of the Famine Commission of 1880, decided that it would be best to leave the business of carrying food into and distributing food in the distressed districts to private traders. This policy was successful. Great supplies of food were moved by the railways from district to district, and from province to province. The railways, which had been nearly doubled since the last great famine of 1897, were of the greatest service in enabling the people, the country and the Government to cope with the famine. Not only did they operate to equalise prices, but they carried enormous quantities of food into stricken districts which could never have obtained supplies under the old systems of communication. The extension of canal and well irrigation secured the safety of food crops over large areas which, in a similar drought, must have lost their harvests 20 years ago. Nowhere did supplies of food fail in the bazaars for those who had money to buy. At relief works in comparatively remote tracts grain sellers were always found ready to sell food to the workers, as soon as they understood that Government would not interpose in the grain trade or interfere with the price at which food was sold. Food supply.

In accordance with the advice of the Famine Commission of 1880, a Famine Code had been previously drawn up for each province, showing what steps should be taken when famine threatened, what measures should be adopted when famine came, and how the campaign against famine should be conducted by the many grades of public officers concerned in the work. In Madras, five years ago, the Famine Code had been actually worked on the occurrence of local scarcity; and in the Jhansi province of the North-West Provinces, regular famine relief had been organised on a large scale, and effectively worked in the year 1895-96. When distress began in October and November test relief works were opened in the North-West Provinces, and in the Central Provinces; and as distress spread the relief organization was extended. Relief was given, for the most part, either as wages for work done, or gratuitously to those who were from age, infirmity, youth, or other causes, unable to work. The wage Relief operations.

FAMINE, &c.

of every worker was paid daily or weekly at such rate as would supply him or her with sufficient food at the rates current on the work. A subsistence allowance, or food in lieu thereof, was given to each dependant of any worker. Arrangements were made at each work for shelter, for food and water supply, and for hospital attendance. Occasionally, as when in the Allahabad district, 60,000 additional people came on relief in a single week, it was difficult adequately to organise sufficient works at once; but, on the whole, the business was everywhere well and promptly done. Though the actual yield of beneficial work may not have been proportionate to the money spent upon it, yet the relief works were generally a satisfactory test that relief was really required. In many places it happened that, when relief works were first opened in tracts where distress was believed to exist, few people came and the works were closed, and were reopened some weeks later for the relief of thousands whom increased pressure had driven to seek assistance.

Gratuitous relief was given in many shapes, either in cooked food at poor-houses and infirmaries, or in doles of money and food at the houses of recipients who were unable to leave their homes, or in doles distributed at appointed centres. To guard against the risk of distressed people staying at home till it was too late for them to travel to relief works or relief centres, lists were prepared for every town and village of the people who were likely to be in need of relief; and pressure was put on such people to repair to relief centres when in want, or to join the relief works if they were physically fit. In regulating the administration of gratuitous relief, village notables, well-to-do folk in towns, and committees everywhere gave much aid. In some districts land-holders opened local relief works for the poorer people on their estates. In many towns the charitably disposed raised funds so as to enable selected shops to sell food to the really poor at prices considerably below the market rates.

Revenue suspensions and money advances.

In order to relieve the pressure on classes connected with the land, the collection of the land revenue was suspended to the amount of Rx. 1¾ million; part of this sum may be collected in subsequent years of good harvest; but some of it will have to be eventually remitted. At the same time loans, amounting to Rx. 1¼ million, were made to solvent persons, chiefly landholders, to help them in executing works of improvement, on which their tenants and dependants could be employed, or to enable them to purchase seed grain.

Charitable Relief Fund.

Large sums of money were contributed by charitable people in the British dominions and elsewhere to alleviate the suffering and privation caused by the famine. The greater part of this money, Rx. 1,650,000,* was distributed by central and local committees working in each province and district. Nearly three-quarters of this fund was spent in giving a fresh start in life to respectable folk who had been ruined by the famine; grants for seed corn and cattle were made to multitudes of petty farmers, who had lost nearly everything in the famine, and would without this help have been unable to resume their calling, or to till their fields. The remainder of the fund was devoted to relieving respectable sufferers who could not seek relief in the ordinary way, to supplementing the State relief with gifts of clothes and small comforts for which the public taxpayer could not properly be charged, and to providing for children who had become orphans during the famine. Deep and widely expressed gratitude was felt by the people of India for the liberal and practical sympathy shown by the people of the Queen's dominions for their distress. Over and above the Central Famine Fund considerable sums were spent by Indian landholders in relieving sufferers on their estates; large sums were sent to missionaries and other agencies for expenditure in special localities; and towards the end of the famine a large contribution of Indian corn and other grain was sent in this way from the United States and was received with great satisfaction by the people to whom it was distributed. Altogether, apart from State relief, about Rx. 2,000,000 of charitable gifts must have been devoted to the succour of the famine-stricken in British India and in Native States.

Suspension of revenue and advances.

Among the earliest measures taken for relieving pressure caused by the drought were the suspension of the land revenue demand in the most

* This charitable fund was contributed: Rx. 1,225,000 by the United Kingdom; Rx. 210,000 by India; Rx. 105,000 by Canada and other British Colonies; and the rest by other lands.

afflicted localities, and the advance of money to landholders who might be willing to open relief works, or to make temporary arrangements for extending irrigation. Land revenue to the amount of Rx. 1,800,000 was suspended; and of this amount perhaps 40 per cent. will in the end be remitted on condition that landholders show corresponding leniency to their tenants. These suspensions and remissions were chiefly in the North-West Provinces, the Central Provinces, and Madras. Elsewhere large suspensions of land revenue were little needed. Advances or loans were made to landholders and farmers to the amount of Rx. 1,288,000; and among other results of these advances 550,759 temporary wells were sunk during the spring of 1897 in the North-West Provinces and Oudh for irrigation purposes. FAMINE, &c.

The depth and intensity of the calamity varied in different regions. Some of the districts of the Central Provinces and parts of Bundelcund perhaps suffered more keenly than any other tracts. At one time 42 per cent. of the total population were receiving daily relief in the Banda district; this is a proportion much beyond what was known in any previous famine. In six other districts of the North-West Provinces the numbers on relief ranged from 10 to 34 per cent. of the population. In seven districts of the Central Provinces the proportion of the population receiving relief at the worst time ranged from 10 to 18 per cent.; while in Bengal, one district and in Madras three districts had at the worst time more than 10 per cent. of the population on relief. The largest number receiving relief at any one time over the whole of India was 4,224,000, of whom 226,000 were in Native States. At that time 3,115,000 of the people were relief workers or their dependants, while 1,108,000 were in receipt of gratuitous relief. At the end of July, during the rainy season, the numbers on gratuitous relief had expanded to 1,600,000, including dependants of relief workers. The season of deepest distress and highest relief varied in the different provinces; in the North-West Provinces, the Central Provinces, and Bengal, the worst time was during the first week of June, in Madras the largest numbers came on relief at the end of August; in Bombay the heaviest relief was given during the middle of September. At the worst time in each province the numbers on relief were as follows :— Extent of the calamity.

—	Week Ending	Total Numbers on Relief.
North-West Provinces	4th June	1,545,000
Central Provinces	4th June	697,000
Bengal	4th June	833,000
Panjab	18th June	105,000
Madras	30th July	831,000
Bombay	13th and 20th September	473,000
Burma	13th August	35,000
Berar	28th May	32,000
Native States	18th June	258,000
Total	At different dates	4,609,000

The gradual cessation of distress and the reduction of relief was more rapid in the North-West Provinces than elsewhere; in those provinces the numbers on relief had fallen to one-half by the first week of July, to one-third by the middle of August, and to one quarter by the first week of September. In the Central Provinces the numbers on relief were over 600,000 in the middle of October, while all relief (except for orphans) ceased in the North-West Provinces, Bengal, and the Panjab by the end of October. Happily the autumn and winter harvests have been good or excellent over nearly the whole of India. By the end of December prices had been slowly falling for some weeks, and the year 1898 opened with good prospects over the whole of India.

A far-reaching disaster like the Famine of 1897 must have caused much distress and suffering to the people. In the Central Provinces the trouble was aggravated by serious outbreaks of cholera, and by epidemics of severe fever. The other famine-striken provinces remained mostly free from visitations of this kind, except Bombay, where Plague afflicted the littoral and some of the inland districts. Until the next census is taken, in 1901, precise information will not be available regarding the mark left upon the population by the famine. Past Indian experience teaches that during a year of famine, and during the year Effect of the famine on the population.

FAMINCE, &C.

following a severe famine, the birth-rate falls much below normal rates. In every province of India attempts have been made for some years to register all births and deaths. In the North-West Provinces, in the Punjab, in the Central Provinces, in Berar, the registration of deaths is now trustworthy; in Madras and Bombay it is fairly good; but in Bengal the registration is not good, while in Burma it is quite untrustworthy. In a famine year special effort is made by local authorities to maintain the registration of deaths. So far as the registration figures go, the death-rates during the famine season (October 1896 to the end of 1897) have been normal, or little above normal, in the Panjab, Bengal, Madras, and Berar. In Bombay up to May 1896 the death-rate was normal, save in plague-stricken cities and tracts; but from June to October the death-rates rose in six of the distressed districts of Bombay to more than 50 per cent. above normal. Epidemics of cholera and plague contributed to this rise in the death-rate. But the position in the Bombay Deccan was aggravated by the scantiness of the rainfall during July and August 1897; and privation probably caused a part of this additional mortality, though actual starvation deaths were not recorded. In the North-West Provinces and Oudh the death rates for the year (October 1896 to September 1897) were returned thus:—

—	Normal Death-rate per Thousand.	Actual Death-rate of 1896-97 per Thousand.
Famine districts only - - -	32·80	39·54
Scarcity districts only - - -	33·26	36·53
Entire Provinces - - - -	33·04	36·30

The highest death-rates of any month were in Hamirpur (8·06), and Jhansi (7·37) during October 1896. During the next ten months only three famine districts in the provinces reported death-rates above 6·0 per thousand, Hamirpur for two months, Fatehpur and Jaloun for one month each. In September 1897, Agra (7·7), Hamirpur (8·9), and Jaloun (9·3) returned death-rates above 6·0; and again in October 1897 six distressed districts reported death-rates over 6·0. October and, in a less degree, September are the malarious season in most parts of the North-West Provinces.

In the Central Provinces the famine had a more serious effect on the death-rates. Out of 18 districts, 11 were more or less severely distressed. For these 11 districts death-rates are available for 13 months, from October 1896 to October 1897, making 143 monthly death-rates in all. Out of these 143 monthly death-rates, 72 were over 6·0, 51 being over 7·0, and 17 being over 10·0. The normal death-rate in these 11 districts ranges from 28·30 to 41·26 per mille per annum.

During the 12 months ending with July 1897 the reported deaths of the famine-stricken provinces were, in comparison with a normal year:—

Name of Province.	Normal Deaths in a Year.	Reported Deaths in 1896-97.
Madras - - - - - - -	675,000	738,000
Bombay - - - - - - -	584,000	637,000
Bengal - - - - - - -	2,241,000	2,114,000
North-West Provinces - - -	1,525,000	1,638,000
Panjab - - - - - - -	687,000	527,000
Central Provinces - - - -	376,000	528,000
Berar - - - - - - -	104,000	115,000
TOTAL - - -	6,192,000	6,297,000

Cost of the famine.

The cost of the famine to India cannot be fully estimated until we see how quickly or how slowly the several stricken provinces recover themselves. It took from 10 to 15 years before the worst districts of Southern India recovered their full population and their full area of cultivated land after the famine of 1877. A careful estimate has, however, been framed of a part of the loss caused by the drought in the North-West Provinces; the local Government estimates the deficiency in food grains alone, valued at normal prices, to have been Rx. 34½ millions. The relief numbers in the North-West Provinces

were three-eighths of the whole numbers for British India; according to this proportion the deficiency of food grains caused by the drought to British India during 1896-97 was Rx. 92 millions. The non-food crop area is 21 per cent. of the food crop area; and therefore the money loss caused by the drought to food crops and other crops might be stated approximately at about Rx. 111 millions. This is at best but a rough estimate. The expenditure on famine relief and the loss caused to the Indian treasury by famine can, however, be stated with approximate accuracy, thus:— FAMINE, &c.

	Rx.
Amount actually spent on relief of distress	7,470,000
Other actual outlay and loss of revenue due to famine	6,540,000
Land revenue suspended, much of which may be collected hereafter	1,650,000
Loans and advances in famine districts	1,370,000
Total Government expenditure and loss	17,230,000
Charitable funds of all kinds expended on relief and rescue of the famine sufferers, about	2,000,000
GRAND TOTAL	19,230,000

Some part of the suspended land revenue and much of the loans and advances will hereafter be recovered if the seasons are favourable, and some small part of the relief expenditure has produced roads and other works of permanent value to the country. But at the best the famine of 1896-97 will probably have caused a permanent loss of not less than Rx. 14 millions to the Indian Treasury.

PLAGUE.

Bubonic plague has on occasions visited places in Western India in past years, and periodic visitations of plague have been known in the Kumaon Himalayas; but there is no record of a previous severe plague epidemic over a large area of India such as afflicted the Bombay Presidency during the years 1896-97. Plague was first identified in Bombay city towards the end of September 1896; it was supposed to have been brought from Hong Kong, but no direct evidence of such an origin was forthcoming. Efforts to contend with the disease, and to prevent its spread, began early in October. The work was at first undertaken by the local health authorities and the municipal staff, but very shortly the Local Government and their officers joined in the campaign against the plague. During October 1896 the disease spread: 20 cases in all had been reported by the end of September, but during October the reported cases of plague were 389 with 276 deaths. In November there was some abatement of the disease; but in December the plague became much worse, and 1,655 cases with 1,160 deaths were reported during the month. There was much panic among the citizens, and large numbers, variously estimated at 100,000 to 250,000, fled from the city into the country. There was no doubt in the minds of those who were dealing with the plague that the disease, or the seeds thereof, were carried from place to place by human agency. Much justifiable anxiety was felt in the Red Sea littoral, in Mediterranean countries, and in other countries that traded with Bombay, lest the disease should spread to Europe or to other parts of Asia. During December cases of plague were identified at Kurachi, which was in frequent communication with Bombay; also at Poona and at eleven other places on the coast or in the districts near Bombay. PLAGUE.

By the month of January remedial and preventive measures were in operation at the three chief plague-centres—Bombay, Poona, and Kurachi: suspected houses were cleansed and disinfected; fresh hospital accommodation was provided; additional doctors were deputed to the work; house-to-house inspection was undertaken; segregation camps were formed; infected houses were vacated; and infected huts were burnt. All passengers entering or leaving infected towns by rail or steamer were inspected, and, if suspected of plague, were stopped. Inspecting officers were sent to towns where plague had appeared or was feared. At first there was some hesitation about enforcing compulsory deportation of the plague-stricken to hospital, and the compulsory isolation of people who had been infected. But, during the month of January, the

PLAGUE.

disease continued to spread in severe epidemical form. In Bombay city, 2,374 plague seizures were reported with 1,825 deaths; in Kurachi, where the type of disease was specially severe, there were 808 cases with 743 deaths. It was feared that the actual plague deaths must have been beyond these figures, for in Bombay city the reported total deaths were during January 1897 about 1,700 per week, or more than three times the normal rate. Early in February an Epidemic Diseases Act was passed, whereby the Government and its officers were clothed with large powers to enforce sanitary and preventive measures. Reinforcements of doctors and nurses were sent from England, among whom were Dr. James Lowson and other medical officers who had directed or assisted in the campaign against plague in Hong Kong two years before. The services of Dr. Haffkine, a Russian specialist, and of Dr. Yersin, a specialist belonging to the French navy, were obtained; and Mr. Hankin, an experienced bacteriologist, was deputed from Northern India to the plague districts. Meanwhile, all pilgrimage from India to the holy places of Islam was stopped, mainly to relieve the anxieties of other nations and partly to prevent persons, specially liable to contract epidemics, from travelling to and collecting at the seaports. Careful and detailed arrangements were made for inspecting all persons travelling by railway from the infected localities.* Travellers suspected of plague were detained in hospital at the places of inspection; while at some points all passengers were detained in camps until the full period for incubation of the disease had passed. At the outset the inspections caused much inconvenience; but, after a time, when medical men and medical women (or, in default of women doctors, women inspectors) had been posted at all places of detention, the inconvenience was reduced to a minimum. Calcutta, Rangoon, and Madras enforced quarantine against arrivals by sea from Bombay and Kurachi until the incubation period of the disease was over. These precautions were so far successful in preventing the spread of plague, that only three cases of plague (two in a pilgrim ship and one in a troop ship) are known to have occurred on board ships sailing outward from Bombay, and in neither case were any other of the crew or passengers attacked. A very few cases of plague, among visitors from Bombay, were reported from Jubbulpore, Rajputana, Madras, the Nerbudda Valley, Hurdwar on the Ganges, and other places; but nowhere outside the Bombay Presidency did plague become epidemic until the autumn of 1897, and not a single case of plague was detected among the millions of famine-stricken people who were on relief works in Northern and Eastern India during the summer of 1897. Among exceptions to this general immunity was a village in Gwalior territory, where plague was identified in the month of March 1897; the inhabitants were turned out of their houses and prevented from going to other villages; the disease was stamped out after 49 people had died, but it did not spread to the people of any other village. In the town of Jawalapur near Hurdwar on the upper Ganges, plague was sporadic for a time and became epidemic during the early months of 1898, but the disease happily did not spread to the surrounding region. Again, in the month of October, plague was identified in a village on the borders of Jullundur and Hoshiarpur in the Punjab; the disease, after almost dying out during January 1898, had spread by the month of May to about 100 villages in these two districts where the total plague deaths rose to 343 in the first week of May, falling again to 98 in the first week of June. During April 1898 plague cases were detected in Calcutta; and up to the middle of May 43 plague deaths had been reported in that city. Stringent remedial and preventive measures have been enforced from the first appearance of the epidemic in the Panjab, in the neighbourhood of Hurdwar, and in Calcutta.

In February 1897 the reported plague deaths were 3,072 in Bombay city and 971 in Karachi. But in March the repressive measures began to take effect, aided by the hot weather, which appears to be unfavourable to the plague organism. Plague deaths in Bombay city fell to 2,673 in the month of March, and to 875 in Karachi. From the 1st April the mortality from plague steadily decreased, till during the week ending the 9th July, the total plague deaths had fallen to 62, of which 3 were in Bombay city, 2 were in Karachi, and 45 were in the Native States of Baroda and Cutch; in the British districts

* During the six months ending with June 1897, as many as 394,000 out-going passengers by steamer and railway, and 283,000 incoming passengers were examined by Medical Inspectors at Bombay city alone.

of Bombay there were only 17 plague deaths during that week, and none were reported from Poona. PLAGUE.

During the rainy season of 1897 plague again spread. There was a very severe outbreak in the Satara district, culminating in 931 deaths during the week ending the 5th November. In Poona, too, the disease reappeared in severe form, causing 612 deaths in the whole district during the week ending the 5th November. The highest number of deaths during the autumn of 1897 was 2,141 in the week ending the 19th November for the whole of the Bombay Presidency. During this time the disease had not increased greatly in Bombay city. During the last week of December 1897, the total plague deaths in the presidency fell to 1,158, but the plague deaths in Bombay rose from 45 in the last week of November to 357 in the first week of January. During the autumn further reinforcements of doctors and nurses had been sent out.

The cold season (December to February) 1896-97, was marked by a great advance of the epidemic at Bombay; by great success in combating plague at Poona, and in the districts of Satara and Sholapur; by the spread of plague into the western districts of the Nizam's dominions; and by the slow but steady advance of the disease in two districts of the Southern Panjab. In the middle of March 1898, the reported deaths from plague were 1,228 per week in Bombay city, 781 per week in the rest of the Bombay Presidency, and about 200 per week in other parts of India. The plague mortality in Bombay city was much larger during March 1898 than it had been in March 1897; and the disease has not this year abated with the advancing hot weather so early as in 1897; by the second week of May the plague deaths in Bombay city had fallen to 110 per week. Karachi had reported no plague deaths from August 1897 till the beginning of April 1898, when a very severe outbreak occurred, and the weekly plague deaths in Karachi were 480 during the first fortnight of May, falling again to 193 in the first week of June.

From September 1896 to the middle of May 1898 the reported plague deaths in the whole of the Bombay country were 86,499; while the actual plague deaths were probably considerably more. Including plague deaths in other parts of India, the total plague mortality during the 20 months ending in May 1898 can hardly be estimated at much below 120,000. The expenditure incurred from general, municipal, and local revenue, in combating the plague will probably reach Rx. 500,000 by the middle of 1898; in Bombay city alone the municipal authorities anticipate that Rx. 300,000 will have been spent.

Apart from the loss of life by the plague, and the grave inconvenience caused to the people by preventive operations, the plague wrought great injury to the trade and industries of Bombay city and presidency. Every country in the world, and other Indian ports, imposed a rigorous quarantine against passengers and goods from Bombay; and for a time all importations from plague-infected ports were prohibited at important marts in Europe. In illustration of the injury done by the plague to Bombay industries, it may be mentioned that during the last three quarters of 1896 the average output of yarn from the Bombay cotton mills was 86 million lbs. per quarter; whereas during the first quarter of 1897 the output was only 40 million lbs., though in ordinary years the first quarter is a busy time. The shrinkage in exports from Bombay and Kurachi was in part due to the famine, a cause which operated also on the trade of Calcutta; but the effect of the plague on Bombay and Kurachi trade appear from the following figures:—

From the Ports in the Provinces of	Total Value of Exports of Merchandise to Foreign Ports during the Nine Months, March to December,		
	1895.	1896.	1897.
	Rx.	Rx.	Rx.
Bombay - - - - - -	26,484,000	25,790.000	19,994,000
Sind - - - - - -	4,987,000	2,839,000	2,929,000
Bengal - - - - - -	34,568,000	33,142,000	33,113,000
Madras - - - - - -	8,645,000	8,446,000	8,036,000

Some part of the decrease in the last year was due to the drought and failure of crops; but the larger ratio of decrease in the province of Bombay marks the effect of the plague on Indian exports.

EARTHQUAKE.

EARTHQUAKE.

At five o'clock in the afternoon of the 12th June 1897, occurred an earthquake or succession of earthquakes, which were felt from Surat, on the west, to Magôk, on the east, a length of about 1,500 miles, and from Gnatong, on the north, to Masulipatam, on the south, a breadth of about 1,000 miles. The limits over which the shocks were severe and destructive were narrower. The centre of disturbance appears to have been in or near the Khasiah Hills district, where seismic phenomena have been comparatively frequent. The effects of the earthquake were more extended and more severe than on any previous occasion of which there is any record or memory; huge monoliths, which are reputed to be of great antiquity in the Khasia Hills, were snapped off a few feet from the ground. The apparatus for measuring the force of the earthquake failed to record precise results, for all the cylinders in the Shillong seismometer fell with one of the earlier shocks of the 12th June; at the lesser shocks on the subsequent days only some of the cylinders fell; the fall of the cylinders showed the direction of the earth-waves to have been from north-east to south-west. At Shillong, at Sylhet, Tura, and at some other places, every masonry building, public or private, was levelled to the ground; at Krishnagur, Calcutta, Darjeeling, Purneah, Tejpur, Dinajpur, Nowgong, and many other towns within the earthquake area, masonry buildings suffered, many either falling or becoming uninhabitable. Railway and road bridges were injured or destroyed; railway and road embankments subsided in many places. Fissures and holes appeared in the ground, out of which sometimes rose mud of a different type to the surface soil. Great landslips occurred on the hills. The rivers were agitated and the Brahmaputra rose several feet at the Gauhati register. River banks fell in at many places on the Surma, Brahmaputra, and other rivers; consequently the spill of the rivers during the rainy season was greater than usual, and much damage was done to crops.

Injury done.

The loss of life caused by the earthquake was less than might have been expected, and is believed not to have exceeded 1,500 in all; the largest number of these deaths occurred either in cliff villages which subsided or were buried by landslips, or by people falling into rivers where the banks collapsed. Generally the single-storied wooden and mat houses of villagers suffered but little, though the loss of life would doubtless have been greater if the earthquake had occurred in the night. It is not possible to say what is the total loss caused by the earthquake. An estimate framed in July placed the cost of repairing and rebuilding public roads, bridges, and buildings injured by the earthquake in Assam alone at Rx. 350,000; while it is said that the opening of the Assam Railway will be thrown back two years, and a loss of perhaps Rx. 1,000,000 will have been caused to the undertaking. The cost of the earthquake to the Government Treasury was given in the Financial Statement of March 1898 at Rx. 530,000, of which Rx. 390,000 will fall upon the estimates of the year 1898–99. Though the earthquake was less severe in Bengal, the injury to railways, roads, and buildings, public as well as private, in that province was very considerable. To the people the most serious loss may flow from the collapse of river banks and consequently increased inundations.

On the 24th October 1897 a cyclone wave submerged two islands off the Chittagong coast and some villages on the mainland. From 8,000 to 10,000 lives, as estimated by the Lieutenant Governor of Bengal, were lost by this disaster. Funds were provided and arrangements made for carrying food and succour promptly to the survivors.

CHAPTER III.

CRIME AND POLICE.

Bengal.

The regular police of Bengal had, at the close of the year, a sanctioned strength of 77 superior officers and 23,502 subordinate officers and men. The cost of the force was Rx. 497,738, a net increase of Rx. 18,849, which was due partly to the grant of compensation for dearness of provisions and partly to the employment of additional police in connection with plague, famine, and railway extensions.

This force is supplemented by 167,000 chaukidars, who for the most part, are paid by means of an assessment on the villages in which they are employed. The assessment is determined by the village punchayet.

There are, in addition, three companies of military police stationed at Dacca, Bhagalpur, and Dumka. The fourth company, which was quartered at Gnatong in Sikkim, was disbanded in 1896.

The casualties in the regular police from all causes have fallen in three years from 2,736 or 11·4 per cent. to 2,311 or 9·4 per cent.

The system of recruitment of sub-inspectors by competitive examinations is reported to be giving good results, and a gradual improvement is taking place in the general conduct of the police. This is shown by the departmental punishments in 1896 having been the lowest on record. The Police Training School is proving most useful. Besides instruction in law, criminal and police procedure, &c., athletics are encouraged, and the physique of the students had been improved thereby. Since the close of the year a beginning has been made in opening district schools for the instruction of the rank and file of the police. At present the percentage of educated men among the constables and town chaukidars is only a little over 25.

The substitution of chaukidars for regular police in towns is being gradually carried out, and, by the increase of their pay, which has been sanctioned in 17 districts, a better class of men will be obtained, who will give their entire time to police service.

The Bengal town police system, which entails constant patrolling, was introduced in many towns in place of the old system of watch and ward, under which the constables or chaukidars are kept stationary at beats. The necessity for the efficient lighting of the streets, upon which the success of the new system largely depends, was again pressed upon municipalities. Measures are under consideration for strengthening the police establishment in the neighbourhood of Calcutta, with a view to controlling the large population of operatives employed in the jute and cotton mills.

The improvement in Backergunge, owing to the vigorous action taken in 1896, has been noticed, but the number of true cases of murder throughout the Province has risen from 362 in 1894 to 389 and 421 in the two following years, and there is a steady increase also in burglary and dacoity. The use of dynamite cartridges in some cases by the dacoits has necessitated a modification of the rules regarding the possession of dynamite without a licence.

The sanctioned strength of the Calcutta police was 2,924 officers and men, of whom three-fourths are maintained for the town and suburbs, and the remainder for Government guards, river service, &c.

The number of reported offences in the city has increased since 1893, and in 1896 was the largest on record (66,919), the largest increase occurring in offences under the Municipal Act. The total number of cases tried was 48,856, of which 38,897, or 79 per cent., ended in conviction. Of 31,210 cognizable cases sent up by the police, 89 per cent. ended in conviction.

The number of fires at which the fire-brigade was employed rose from 35 to 47.

North-Western Provinces and Oudh.

The total strength of the provincial, municipal, and railway police in the North-Western Provinces and Oudh was 25,699, showing a slight increase.

The total expenditure was Rx. 548,185, the increase of 2½ lakhs of rupees being due in a great measure to the introduction of reforms.

CRIME AND POLICE. Only 995 cases of departmental punishment are reported, against 1,415 last year, but four cases of torture by the police were brought to light, and the offenders severely punished.

The number of cognizable* cases reported was 233,478 (as compared with 223,353), of which 118,122 were investigated.

Dacoity increased markedly, and fire-arms were more frequently used by dacoits, but a number of gangs were broken up.

There was a decline in the proportion of police cases ending in conviction to those investigated.

Cattle-thefts increased, but there was greater success in arresting those who committed them.

The police were very successful in dealing with the recognised criminal tribes.

Punjab. The sanctioned strength of the police of all kinds in the Punjab was 20,046, including 679 subordinate and 72 superior officers. They are classified as "Imperial, Municipal, Cantonment, Railway, Canal, Ferry, Pound, and Watch and Ward."

Their numbers were in the proportion of one policeman to an area of 5·5 square miles, to 1,040 of the whole population, to 1,194 of the rural, and to 305 of the urban population; but reckoning only those who were employed on purely police duty, viz., 7,766, the proportion was 1 to 2,686 souls and 14·2 square miles.

Sixty-three per cent. of the men of the entire force and 50 per cent. of the officers were Muhammadans.

The estimated cost of the force was Rx. 352,807, of which Rx. 295,664 was payable from Imperial or Provincial revenues and Rx. 57,142 from Local funds and other sources.

While as to persons arrested by the police there was a slight falling off, from 60 to 58, in the percentage of persons convicted, there was a slight improvement, from 40 to 42, in the percentage of property recovered, and a great improvement, from 35 to 52, in the percentage of police cases convicted to police cases investigated.

There was an improvement on the whole in the conduct of the force, punishments having diminished from 2,046 in 1895 to 1,672 in the year under review, but the percentage of dismissals of railway police have increased from 1·1 in 1894 to 5·3 in 1896.

Burma. The strength of the civil police in Burma was increased by 116 men to 13,860. Partly to this increase, partly to the force being kept up more nearly to sanctioned strength, it was due that the total expenditure increased from Rx. 363,021 to Rx. 368,858.

Police work has improved, and the service is becoming more popular. Training schools have proved their value, and are now established in all but two of the districts, and a larger number of men were passed through them. The beat patrol system was in full working order. By it the police are kept in touch with the village headmen, who were of much assistance; and in towns with the ward headmen and elders, The patrols were instrumental in bringing a large number of cases to light.

There was a small increase of 3 per cent. in cognizable crime generally. Of the true cases throughout the province 90 per cent. were investigated by the police, and in 57 per cent. of these, convictions were obtained.

The previous year's decrease in the number of crimes of violence in Lower Burma was maintained, and there were fewer cases in which firearms were used. On the other hand, in Akyab, there was a serious increase of violent crime, of which no explanation is given, accompanied by a falling off in detection; and along with a considerable increase in the number of cattle stolen there was a decrease in the number recovered.

The number of railway police was increased from 238 to 311, partly in consequence of the increase in railway mileage, partly in order to make sufficient provision for absentees.

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* A "cognizable offence" is one for which a police officer may, in accordance with the terms of the Code of Criminal Procedure, or under any law for the time being in force, arrest without warrant.

The military police force was reduced by two companies in Upper Burma, and has been further reduced since the close of the year, but in Lower Burma their strength has been increased. The cost of the force diminished by Rs. 8,344 to Rx. 396,205. The military police supplied the usual escorts to civil officers on tour in the Bhamo and Myitkyina districts, in the Chin Hills and in the Shan States, but there was little fighting. CRIME AND POLICE.

The district executive police force in the Central Provinces numbered 29 superior officers and 8,055 subordinate officers and men. There were also 381 railway police. Central Provinces.

The severe distress prevalent throughout the province led to a large increase of offences against property, but they were mostly of a petty nature. The most serious outbreak of lawlessness occurred in the Nagpur district in September 1896, owing to the rapid rise in the price of food-grains on the failure of the autumn rains. These grain riots were, however, quelled without difficulty, and though prices rose much higher, there was no recurrence of them.

The proportion of cases of cognizable crime investigated by the police (69·73 per cent.) to those reported was less than in 1895, when it was 76·33. On the other hand, conviction followed in 56·32 per cent. of the cases investigated, and of the persons tried 85·87 per cent. were convicted. Taking into consideration the fact that the police had nearly 9,000 more persons to deal with than in 1895, the results were fairly satisfactory.

Assam, at the end of 1896, had a sanctioned force of 2,941 military and 2,294 civil police, and the year's expenditure from Imperial and Provincial revenues was Rx. 140,875. This amount, though an increase in comparison with 1895 of more than one lakh, was about the same as in 1894. There were also 6,962 rural police maintained by the villages at a charge of Rx. 31,825. The cost of the military police was largely increased by the necessity of giving compensation for dearness of food-grains and by the supply of a new infantry equipment to the Garo Hills battalion. The signallers of the North Lushai battalion were employed on the Kairuma expedition, and the Naga Hills battalion accompanied the Survey parties of the Assam-Burma Connection Railway as escorts. Assam.

The Assam-Bengal railway is apparently partly accountable for an increase in 1895 and 1896 of offences against property by having brought a large number of coolies into the province to work on its construction, and by giving greater facilities to professional criminals. The conduct of the force was satisfactory.

The police force of Berar was reduced by 12 to 2,898, of whom 1,762 were Hindus and 1,045 Muhammadans. The proportion of police was one man to every 6·1 square miles and every 1,001 of the population, Berar.

The aggregate cost was Rx. 56,853, as against Rx. 56,636 in 1895–96.

The number of cases of departmental punishment rose from 378 to 417.

Cognizable crime increased by 11 per cent. over last year's returns. This increase is ascribed to the general scarcity.

Dacoities increased from 42 to 85.

The police investigated 78·9 per cent. of cases reported, and in 65·8 per cent. of these cases conviction followed.

The actual strength of the police force of the Madras Presidency (including the city of Madras), was, on 31st December 1896, 22,900, as against 24,065 in the preceding year. There was an increase of 209 men to the sanctioned strength, owing chiefly to the addition of orderlies for new railway stations, and additions to the District force in Malabar, Godavari, and Kurnool. Madras.

The proportion of police to population was 1 to 1,669 (the same as in the preceding year), and, to area, 1 to 6·2 square miles.

The cost of the police force rose by Rx. 17,061 to Rx. 439,720.

The number of policemen departmentally punished was 4,348 an increase of about 500. The percentage of men able to read and write rose from 84·8 to 85·7.

The number of processes issued in grave cases was 359,699, and in petty cases 547,818.

There were 12,401 violent deaths, and 11,880 fires were reported. The number of known depredators, suspects, receivers of stolen property, and members of wandering gangs, registered but at large, was 24,598.

The number of dacoities reported rose from 229 to 284.

CRIME AND POLICE. There was a slight falling off in general detection from the high level of last year.

The total number of cases referred as false by the police to magistrates was 9,171, of which 91 per cent. were struck off. Only 180 prosecutions for the preference of false charges took place.

The number of offences under the Indian Penal Code remained about the same as in the previous year. Offences against revenue laws fell (by 2,000) to 30,325.

The most important events of the year, from a police point of view, were the Mopla outbreak in Malabar, the anti-Kallar agitation in Madura, and the strike at the Negapatam Railway workshops accompanied by riots in Tanjore.

Bombay. The total strength of the police of the Bombay Presidency (including Sind and Aden), was 67,405, against 63,733 in 1895–96. The cost rose from Rx. 488,045 to Rx. 500,542.

As regards the standard of education, the year was marked by considerable improvement.

Of the 67,405 cognizable cases in the Presidency (including Sind but excluding Aden), the police investigated 56,108, of which 2,882 were struck off as false.

The number of non-cognizable cases rose from 141,968 to 165,802.

There was a marked increase in serious crime in Bombay city.

Of the 64,092 persons arrested by the police in connection with cognizable cases, 82·89 per cent. were convicted.

At Aden 400 persons came before the magistrates.

Coorg. The strength of the Coorg police is not stated, but the cost of the force was Rx. 3,215 (as against Rx. 3,238 last year). The strength of the force in 1895–96 was 226.

The number of men dismissed was 17 (as against 24 last year), and 167 (as against 150) were departmentally punished.

The number of cognizable offences (918) shows an increase of 137.

Of the persons arrested by the police (1,288) 52·24 per cent. were convicted.

The magistrates referred to the police 64 non-cognizable cases, involving 118 persons, of whom only 14 were convicted.

CRIMINAL JUSTICE.

CRIMINAL JUSTICE

Bengal. In Bengal, excluding Calcutta, criminal justice is administered among a population of 70 millions and over an area of nearly 139,000 square miles by 432 stipendiary magistrates and 2,036 honorary magistrates (10 and 43 respectively, more than last year), and by 32 sessions judges.

Calcutta, with an area of 8 square miles and 466,000 inhabitants, has two stipendiary and 105 honorary magistrates, and a High Court, presided over by 13 judges, which is the principal court of original jurisdiction for Calcutta, and of appellate jurisdiction for the whole province.

The total number of offences reported during the year in the province, increased from 329,820 to 351,883 (of which 298,771 were returned as true), the increase being under offences against property and offences affecting the human body. In breaches of local and special laws there was a marked decrease. The number of cases brought to trial rose from 188,962 to 197,837. The number of persons tried for all offences was 265,231, or 4·3 per cent. more than in 1895, the percentage convicted (66·1) remaining the same.

The total number of stipendiary magistrates, including district magistrates outside Calcutta, at the close of the year was 432. They disposed of 109,479 cases. 195 benches of magistrates outside Calcutta with 2,036 magistrates disposed of 50,298 cases during the year. The Presidency magistrates' courts in Calcutta tried 36,997 cases during the year. Altogether courts of magistrates in the interior decided 160.051 cases, which occupied on the average nine days each. Courts of Sessions tried 1,711 cases, or 10 per cent. more than in 1895, the percentage convicted being 62, against 60·3 in 1895, and the average duration of trials being 48·1 days against 45·9. The number of persons tried by jury was 593; the sessions judge agreed with the verdict of the jury in respect of 529 of these and differed in respect of 64. As to 43 of the latter the judge disagreed so completely that he referred their cases to the High Court, by whom the verdict of the jury was reversed in the case of 17 persons, upheld in the case of 12, and modified in the case of 14.

Appeals to sessions judges rose from 7,252 to 7,800, and the percentage of decisions confirmed from 49·41 to 51·77. Appeals to district magistrates also increased—from 5,539 to 5,694, the percentage in which the order of the lower courts was confirmed rising from 60·82 to 61·58. CRIMINAL JUSTICE.

Robbery cases rose from 238 to 283 and dacoities from 255 to 331. The serious increase of organised dacoity indicated by these figures occurred in Western Bengal, and has necessitated the employment of a special detective force for the purpose of tracing and breaking up the gangs by which these cases are planned.

The occurrence of fewer murders may be attributed to the withdrawal of gun licences and other measures taken for the prevention and detection of crime in the Backergunge district.

Although the North-Western Provinces and Oudh have, for legislative purposes, been united, Oudh remains technically a "Non-Regulation Province," and its criminal statistics are separately presented. The area of the combined provinces is 107,502 square miles, and the population about 47 millions. North-Western Provinces and Oudh.

Criminal justice is exercised by the High Court of the North-Western Provinces, the Judicial Commissioner of Oudh, 28 sessions judges, 48 district magistrates, and 774 subordinate magistrates.

The number of offences reported in the North-Western Provinces was 145,029 (of which 116,287 were returned as true), as compared with 157,347 (with a 125,091 returned as true) in 1895–96. Of the 166,615 persons brought to trial 94,451 were convicted and 68,409 acquitted or discharged. The year was one of scarcity and distress, and there was a marked increase in cases of robbery and dacoity, but the volume of crime, on the whole, decreased. *a.* North-Western Provinces.

Honorary magistrates tried 23,293 cases and stipendiary magistrates 79,555.

As regards convictions, the percentage in magistrates' courts rose from 55·3 to 57·7. The Courts of Sessions disposed of 2,705 cases (an increase of 275), 66 per cent. of which resulted in conviction. They heard 10,064 appeals, upholding 76·2 per cent. of sentences. The High Court disposed of 1,411 appeals, rejecting 81 per cent.

The number of sentences of whipping passed by magistrates increased by 3,709 to 11,290.

In Oudh there was a decrease in the number of offences reported—from 15,273 to 12,793, the number returned as true being 11,088, as compared with 13,846 Of the 61,634 persons brought to trial 30,486 were convicted and 29,111 acquitted or discharged. *b.* Oudh.

Honorary magistrates tried 8,818 cases, and stipendiary magistrates 27,822. The percentage of convictions fell from 51 to 50 per cent.

The Courts of Session disposed of 764 cases (an increase of 110), convicting in 66 per cent., and heard 3,854 appeals, upholding the sentences in 74·4 per cent. of the cases. The Court of the Judicial Commissioner heard 527 appeals, affirming 78 per cent. of the sentences.

Whipping was ordered by magistrates in 714 more cases than in 1895–96.

Comment is made on the number of vexatious and frivolous charges still preferred, in spite of the clause of the Criminal Procedure Code (section 560), which empowers magistrates to award compensation to the accused in such cases.

Excluding Feudatory States and some scattered territory the area directly administered by the Punjab Government is 101,827 square miles, with a population of about 21 millions. Criminal jurisdiction was exercised by 48 special magistrates, 108 honorary magistrates, 133 benches of magistrates, 402 stipendiary magistrates, 35 magistrates of the district; 14 Sessions judges, and five judges of the Chief Court. Punjab.

The figures for 1896 indicated a further rise in the volume of crime, particularly under the serious heads of murder, hurt, mischief, and criminal trespass of the more aggravated types, and of offences against property. As regards the last class of offences, the tendency was probably due to the prevalent scarcity and high prices. But the great increase in crimes of violence may be fairly attributed to the growing impunity enjoyed by the criminal and the consequent inadequacy of the existing deterrents.

CRIMINAL JUSTICE. The actual number of reported offences was 233,620, which is 4·75 per cent. more than in 1895 and 17 per cent. more than in 1892. Allowing for the share which new methods of compiling statistics have had in producing this increase, it is nevertheless the case that in five years reported crime has risen, in round numbers, from 165,200 to 192,000, or 16 per cent. The average number for the past five years was 177,710, of which more than 31 per cent. were summarily struck off. In 1896 the percentage so rejected was 30 per cent. out of 192,652.

The number of offences, therefore, which may be taken to have occurred was 133,232, representing about six offences per thousand of the population, against 124,916 in 1895, and a five years' average of 121,863. Of this number 105,693 were brought to trial, against 102,074 in 1895, and an average of 98,556. Conviction was obtained in 48,281 cases, or 45 per cent., and of 233,620 persons brought to trial 81,166, or about 35 per cent., were convicted. This proportion of convictions is smaller than that of other provinces, where the elimination of groundless charges is less extensive than in the Punjab.

Of the total number of offences reported 76 per cent. fell under the penal code, and 24 per cent. under local and special laws. Deducting rejected cases, the proportion of true offences was respectively 75 and 29 per cent., the numbers being 94,822 and 38,410, and, compared with 1895, representing an increase of 10 per cent. under the first head, and a decrease of 1 per cent. under the second.

The following heads account for 78 per cent. of the admitted crime of the Province :—hurt 22,664 cases, an increase of 14 per cent. ; criminal force and assault, 15,035, a slight decrease; criminal trespass, 18,759, and mischief 4,171, in each case an increase of 16 per cent. ; theft, 13,507, an increase of 20 per cent. ; total, 74,136, under five heads, leaving a balance of 20,686 under the remaining 28 heads. It has been said that of persons prosecuted only 35 per cent. were convicted, but the case is worse when it is seen that of those tried under the penal code, *i.e.*, for more serious offences, only 23 per cent. were convicted.

In three years the reported cases of murder have increased from 569 to 748, and the number of these returned as true from 469 to 641 or nearly 37 per cent. ; 602 cases were brought to trial, and 1,466 persons, of whom only 406 were convicted, or 36 per cent. of those whose cases were disposed of. Murder cases continue steadily to increase. 159 cases, involving 500 persons, were referred to councils of elders, who, out of 415 persons whose cases were disposed of, convicted 44 per cent., against a percentage of 30 per cent. convicted in the ordinary courts.

Of 81,171 persons who were convicted during the year, 59,402 could have appealed. Only 22,701 or 38 per cent. did so, the appeals lying to district courts, 13,502 ; sessions courts, 8,336 ; the chief court, 863. In 1895, the percentage of appeals was 35.

The number of criminal appeals instituted in the chief court was 594 or 8 more than the average of five years. These cases involved 863 persons, and the cases of 165 were pending from 1895 ; total 1,028. The results were that in respect of 22·5 per cent., the appeals were rejected, of 20 per cent. they were confirmed, of 29 per cent. they were reduced or otherwise modified, and of more than 10 per cent. they were reversed. The cases of 175 persons were undisposed of at the end of the year. The average duration of the cases, 52 days, was a slight improvement on 1895, but compares unfavourably with 44 days, the average of the three preceding years.

Burma. Lower Burma has an area of 87,831 square miles, and a population of 4,658,627. Criminal jurisdiction was exercised by a judicial commissioner, a recorder, 7 sessions judges, 20 district magistrates, and 175 subordinate magistrates. Upper Burma is but little smaller than the older division of the province, but the population is one-third less. Criminal jurisdiction there is exercised by 132 salaried European judges and magistrates, 262 salaried native magistrates, and 17 benches of honorary magistrates.

The number of cases brought to trial in the whole province in 1896 was 65,728, of which 51,100 belonged to the Lower, and 14,628 to the Upper, division of the province. Though there was an increase in the number of cases, it was mainly due to offences against special and local laws. In Lower Burma fewer cases were tried by district magistrates and Courts of Session, but in Upper Burma, while

the work of sessions judges declined, district magistrates had more to do. Honorary magistrates had more cases given them, but the very large proportion of acquittals by them was the subject of remark. Considerable relief was afforded to the Courts of Session by the special powers conferred on district magistrates. CRIMINAL JUSTICE.

As in previous years, the proportion of convictions was greater in Upper than in Lower Burma. In the former, 16,005 persons or 65·2 per cent. out of 24,742 were convicted; in the latter, 49,125 or 61·2 per cent. out of 80,350. Owing to greater care on the part of committing magistrates, convictions in Session Courts reached the high average of 72·36 per cent., but in some districts the proportion was much smaller, Amherst giving the lowest percentage, viz., 45·12. Two additional session judges were employed in the Pegu and Irrawaddy sessions divisions to the much needed relief of the Commissioners of those divisions.

In the whole of Burma 65,130 persons were convicted. There were 13,907 sentences of rigorous imprisonment; 4,010 of whipping and 43,904 of fine. The average fine was in Lower Burma Rs. 12½, and in Upper Burma, Rs. 14¼.

There were fewer appeals to the recorder and the judicial commissioner, but everywhere else appellants were more numerous, and there were more appeals by Government against acquittals. Revisional work increased in all directions in Lower Burma, but in Upper Burma, Session judges and district magistrates did rather less than in 1895.

The Central Provinces have an area of 84,445 square miles, and a population of about 11 millions. Criminal justice was administered by a judicial commissioner, seven sessions judges, and 408 magistrates, of whom 361 were natives. Central Provinces.

The cases returned as "true" (29,106) were 90·7 of the number reported. In the districts where scarcity and distress prevailed, there were more offences against property and fewer offences against the person; where harvests were good there was a decline in thefts and burglaries, and an increase in petty cases of hurt and assault. Dacoities increased from 36 in 1895 to 93, but most were of a petty nature, and committed for the sake of obtaining food. Of 51,325 persons brought before the magistrates, 61·6 per cent. were convicted or committed, against 57·5 per cent. in 1895. In the Courts of Session, the number of persons disposed of increased from 298 to 341 and the percentage of persons convicted to those disposed of from 59·7 to 73·9. Appeals to district magistrates and to the judicial commissioner decreased by 11 and 13 per cent. respectively; appeals to Courts of Session increased by 35 per cent.

The area of Assam is 49,004 square miles; the population 5,476,833. Criminal jurisdiction is exercised by 3 sessions judges, 8 district magistrates, 57 stipendiary, 19 special and honorary magistrates, and 3 benches of magistrates. Assam.

Of 32,409 offences reported, representing 1 to 155 of the population, 23,446, or 73·1 per cent., were accepted as true, 15,578 of them being offences under the penal code. Of 23,853 persons who were brought to trial, 13,388 or 56·12 per cent., being 1 in 371 of the population, were convicted. The number of cases decided by the different grades of magistrates were as follows: District magistrates, 96 each; stipendiary magistrates, 229 each; benches of magistrates tried 171 cases in all; and honorary magistrates 719 in all or 37 each.

There was a noticeable increase under the heads of theft and burglary, and in offences against public tranquillity, which was in some measure due to the high price of food-grains during the year. Murder cases diminished from 51 in 1895 to 35, and the 15 convictions represent the same proportion, 43 per cent., as in 1895, but with regard to cases of culpable homicide which increased from 29 to 48, the number of persons convicted (20, being 42 per cent.) compares unfavourably with the 90 per cent. convicted in 1895.

The "Hyderabad Assigned Districts" or Berar have an area of 17,720 square miles, and a population of 2,897,000. Criminal jurisdiction is exercised by the judicial commissioner, 2 sessions judges, 6 district magistrates, and 71 subordinate magistrates. Berar.

There was a large increase in criminal business, the number of offences reported rising from 17,577 in 1895–96 to 19,223, or by 9·3 per cent. The cases returned as true came to 16,106 (an increase of 11·9 per cent.), and cases brought to trial rose by 14·5 per cent. to 13,868.

CRIMINAL JUSTICE. Of the 25,707 persons who came before the magistrates during the year, 25,052 were dealt with, and of these, 14,957 were acquitted or discharged, and 9,217 convicted.

The Sessions Court tried 84 persons in its original jurisdiction, of whom 48 were convicted.

The total number of appeals for disposal before all courts was 1,057 (an increase of 98), but the number before the Judicial Commissioner decreased by 70 to 87. The number of appeals pending at the close of the year was 61. The Judicial Commissioner confirmed 4 death sentences out of 12 that came before him. The Judicial Commissioner upheld the original judgments in 75 per cent. of the appeals before him, and the Sessions Court in 81·4 per cent.

Madras. The Presidency of Madras has an area of 141,389 square miles, and about 36 million inhabitants. Criminal jurisdiction is exercised in the Presidency town by the High Court and four Magistrates; and in the Mufassal by 20 Courts of Session, 127 first-class magistrates, 470 second-class magistrates, 109 third-class magistrates, and 6,333 village magistrates.

The number of offences returned as true was 307,534, being 568 more than in the preceding year.

Of the 412,216 persons for trial, 405,393 were dealt with. Of these, 217,589 were discharged, 4,302 were committed or referred to superior courts, 124,226 were convicted on regular trial, and 58,976 on summary trial—figures which show a slight increase on last year, The percentage of convictions was the highest on record, varying from 59·16 in Bellary to 30·90 in Kurnool. The total percentage of convictions under the Indian penal code was 22·1, and under local and special laws 84·3. The up country magistrates disposed of 243,739 cases, affecting 405,093 persons, and convicted 45·7 per cent. Session Courts disposed of 1,083 original cases, convicting 42·2 per cent. (as against 46·6 in 1895), and heard 1,111 appeals, confirming the original sentences in 65·4 per cent. of the cases. The presidency magistrates disposed of 51,758 cases, affecting 58,554 persons, with the result of 88·5 per cent. convictions. The number of original cases before the High Court fell from 54 to 34, but the percentage of convictions rose from 57·0 to 62·5. The High Court disposed of 638 appeals and 601 revision cases, the percentage of confirmation on appeal being 78·1. Sentence of death was confirmed by the High Court in 57 cases out of 74.

Cases of dacoity are reported from every district except two.

Bombay. The Bombay Presidency, including Sind, has an area of 125,064 square miles, and a population of about 19 million. The Bombay Presidency also controls Aden (75 square miles), and the British Protectorate on the Somali Coast.

Criminal justice is dispensed by the High Court of Bombay, the Sadar Court of Sind, 27 Session Judges (including Joint and Assistant Session Judges), 23 district magistrates, 4 presidency magistrates in the city of Bombay, 155 magistrates of the first class, 258 of the second class, 247 of the third class, and (for certain offences) 45, 151 police patels. The total number of offences reported during the year was 263,303 (against 244,041), of which 226,112 was returned as true. The total number of persons under trial was 320,485 (being 24,895 more than in 1895), of whom 100,373 were convicted, and 51,197 remained under trial at the end of the year. The proportion of acquittals and discharges rose from 59·68 to 63·62. The number of European British subjects brought to trial was 346, of whom 295 were convicted.

The magistrates of various classes had before them 313,597 persons, of whom 64·56 per cent. were acquitted; the courts of session, 2,302 persons, of whom 46 per cent. acquitted; and the High Court on its original side, 56 persons, of whom 9 were acquitted.

As regards capital sentences, the Sadar Court of Sind dealt with 12 persons, confirming the sentence of death in 7 cases; and the High Court of Bombay with 81 persons, confirming the sentence in 23 cases.

The increase in the volume of crime is attributed to the abnormal conditions of a year of plague and famine. The greatest increase, however, was shown in the number of offences against local and special laws, which rose, by 40,306 cases, to 157,834.

The area of Coorg is 1,583 square miles and its population 173,055. Criminal jurisdiction is in the hands of 1 sessions judge, 1 district magistrate, and 18 subordinate magistrates. CRIMINAL JUSTICE. Coorg.

The number of cases reported during the year was 3,671, and 90 were left over from last year. Of these 3,761 the number brought to trial was 2,340, and 1,646 of these resulted in acquittal or discharge. The balance left pending was 99.

The total number of cases last year was 4,074, so that considerable decrease in crime has occurred.

The number of appeals filed was 80, in 49 of which the sentences appealed against were confirmed.

JAILS.

JAILS.

There were throughout British India 40 central jails, 191 district jails, and 495 subordinate jails and lock-ups. The year opened with a jail population of 101,061; the aggregate number of prisoners in jail during the year was 577,241 (of whom 550,965 were males), and the daily average was 103,688. Compared with 1895, these figures represent an increase, respectively, of 4·8, 3·6, and 2·57. Number of jails, &c.

The number of convict admissions in the two years rose from 177,974 to 182,023, Burma being the only province in which the increase was not due to the prevailing scarcity. A considerable number of prisoners (1,042) were released in the Central Provinces to relieve the overcrowded jails and as an alternative to transferring them to other jails by routes on which cholera was present. In the North-Western Provinces and Oudh 176 convicts were released because their offences had been committed under pressure of want. The daily average number of convicts was 95,034. Convicts.

There were on the whole fewer escapes. An increase in Assam is assigned to want of supervision by the superior authorities, and a similar increase in the Punjab to the insecurity of the jail buildings. Escapes.

A larger number and proportion of the convicts were Mussulmans (45,046 to 47,256) and Buddhists (15,645 to 17,273). The number of Hindus and Sikhs (110,578) was slightly less than in 1895, and there were fewer Christians (2,386 to 1,834). Nationality and religion.

Distribution of the convicts admitted, according to their age, shows that 1,694, or ·93 per cent., were under 16 years of age, 79·1 per cent. were between 16 and 40, 18·12 between 40 and 60, and 3,367, or 1·85, were over 60. The proportion was smaller of prisoners of the extreme limits of age, compared with 1895, and it was correspondingly larger with respect to the other two heads. The decline in the number of juvenile offenders is satisfactory, but still leaves room for improvement and for a more liberal exercise of the power to discharge first offenders, to punish with whipping rather than imprisonment, and to send to reformatory schools. Age.

Of these schools there were seven with, at the close of 1896, 1,216 inmates. The reports show a decided improvement to have taken place. The great majority of those who have been discharged do well, and many of them carry on the industry they were taught in the reformatory. The only exception was in the case of the Bareilly school, where the technical instruction was incomplete. Reformatory Schools.

With regard to the educational standard of prisoners, it appears that 10·7 per cent. of those admitted were able to read and write, 3·2 per cent. were able to read only, and 86·1 were illiterate. Burma had the largest number who could read and write. The North-West Provinces and Oudh had the largest number of illiterate. Educational standard.

Agriculturists furnished the largest proportion of the convicts (56·1); nearly 10 per cent. were in service and 4·9 per cent. were in trade; 4 per cent. were professional persons, nearly 3 per cent. were artisans, 2·4 per cent. were employed under Government or Local Authorities, and the balance, over 19 per cent., were "miscellaneous." Employment previous to admission.

JAILS.
Sentences.

In spite of the special circumstances of the year there was a decrease in the proportion, but not in the actual numbers, of short terms of imprisonment, the 56,019 sentences for terms of less than one month representing 30·78 per cent. of the total admissions, against 31·49 per cent. (56,022) in 1895; 19·12 per cent. were committed for less than three months, against 19·34 in the previous year; 19·09 per cent. for less than six months, against 18·46; 15·73 per cent. for less than one year, against 15·27; 8·80 per cent. for less than two years, against 8·77; 4·05 per cent. for two to five years, against 4·16; 1·27 for five to 10 years, against 1·25; ·06 per cent. for more than 10 years, against ·04; ·76 per cent. were transported, against ·86; and 610. or ·34 per cent., were sentenced to death, against 638, or ·36, in 1895.

Of the total number of convicts admitted into jail, 25,318, or 13·91 per cent., had been previously convicted, this being again a slight increase upon the proportion (13·68) in 1895. It has been decided, upon the report of a committee, to adopt, as simpler and more effectual, the system of identification by finger impressions in place of the Bertillon system of anthropometry.

Occupation in prison.

Of the average number under sentence of labour, 92,054, or 8·96 per cent. were employed as prison officers, 10·21 per cent. as prison servants, and 38·3 on manufactures.

Prison discipline.

In three years the number of prison offences rose from 134,284 in 1893 to 160,115 in 1896, with a curious disparity in different provinces, which appears to be due to difference of procedure in recording the offence. In Bengal the convict overseer keeps the prisoner's history ticket, and records the offence at once. In the North-West Provinces and the Punjab the system is more elaborate, and consequently fewer offences are recorded. This, it is again pointed out, should be amended. Punishments increased in number from 147,422 to 160,099, the larger number (142,951) and the larger increase (8,742) being under minor punishments. The increase in the number of major punishments, from 12,925 to 16,829, was almost entirely confined to the Punjab, where in three jails the ratios exceeded 600 per cent. of the average strength, while, on the other hand in four other jails the ratio in each case was below 150 per cent. of the average strength. The number of corporal punishments, which had fallen from 1,696 in 1894 to 1,580 in 1895, rose to 1,753, or 1·09 of all punishments, in the year under review. The number was highest in Burmah (362) and the North-West Provinces and Oudh (329). The number of convicts who came under the mark system has increased steadily from 24,913 in 1894 to 28,953 in 1896. The result of the inquiry into the merits of this system has been generally favourable to its continuance when combined with an adequate and uniform record of offences.

Gross expenditure.

The gross expenditure and the gross cost per prisoner in the last three years have been: 1894, Rx. 561,675 and Rs. 58. 11. 9; 1895, Rx. 573,711 and Rs. 57. 2. 2; 1896, Rx. 624,587 and Rs. 60. 8. 6, the increase in 1896 being due to the increased cost of provisions.

Establishment.

The cost of establishment diminished slightly, from Rx. 220,029 to Rx. 218,981, and the cost per head from Rs. 21. 14. 7 to Rs. 21. 3. 7, ranging from Rs. 29. 1. 4. in the Punjab to Rs. 13. 3. 5 in the North-West Provinces and Oudh.

Dieting charges.

Dieting charges rose from Rx. 237,268 to Rx. 273,872, the cost per prisoner, excluding Coorg, being highest in Burma (Rs. 32. 7. 6) and lowest in the North-West Provinces and Oudh (Rs. 23. 10. 6).

Hospital charges.

Hospital charges rose from Rx. 28,517 to Rx. 31,994, representing a rise in the cost per head of the average number sick from Rs. 65. 14. 9. to Rs. 78. 5. 4, and per head of average strength from Rs. 2. 13. 5 to Rs. 3. 1. 7. The average hospital expenses of a sick prisoner were highest in Bengal (Rs. 135. 9. 4) and lowest in the Central Provinces (Rs. 36. 3. 8).

Dieting charges were in some places kept down by purchasing provisions at harvest time, and the general adoption of this method is under consideration.

Earnings of prisoners.

The cash earnings of prisoners, which had risen to Rx. 167,056 in 1894, fell in 1895 to Rx. 141,656, and again to Rx. 134,265 in 1896, the greatest decrease

being in Bengal and the North-West Provinces and Oudh, though the number of convicts available for labour increased. Deducting cash earnings from gross cost, the net cost of jail administration was Rx. 490,322, being an increase of nearly 12 per cent. compared with 1895, although the net cost of that year was 8·5 per cent. higher than in 1894. The average net cost of a prisoner has therefore increased from Rs. 41. 1. 11 in 1894 to Rs. 43. 0. 5 in 1895 and Rs. 47. 8. 4 in 1896, varying from Rs. 66. 5. 8 in Bengal to Rs. 34. 13. 11 in Burma, and about the same in Assam and the Central Provinces. JAILS.

Though the prison population was larger there were fewer admissions to hospital. But the death-rate, rose from 26·59 to 27·79 per mille. The Bengal rate, which was 47·12 per mille in 1894, had, however, fallen to 25·78, owing mainly to increased attention to the dieting of the prisoners and to recent improvements in the sanitary condition of the jails. The ratio in Assam (50·86), though lower than in 1895 (59·21), is far higher than it should be, and the subject is receiving attention. Overcrowding and the poor condition of many prisoners on their admission, account for the excessive mortality (72·11) in the Central Provinces. Fault is also found with the system of dieting in the jails of this province. Outbreaks of cholera caused high death-rates in the Thana jail in Bombay (113·6) and in the Darbhanga jail in Bengal. In the Bombay Presidency the presence of the plague put great difficulties in the way of transferring prisoners from the crowded jails and removing those sentenced to transportation. Health of prisoners

In 1896 superintendents of jails had to contend against scarcity, leading to crime and overcrowding; cholera and plague preventing transfers; stagnation of trade, which reduced the demand for jail manufactures; and the high price of food. The same evils existed throughout 1897, and have, it is feared, operated with greater effect upon the health of the jail population and the cost of their maintenance.

CIVIL JUSTICE.

The number of civil suits instituted in Bengal in the Civil Courts subordinate to the High Court rose from 565,642 to 575,922, of which 47·5 per cent. were suits for money or moveables, 40·6 per cent. were suits under the rent laws (and these alone accounted for the increase), and about 12 per cent. were title and other suits. The total number for disposal, including those pending from the previous year, was 677,136, of which 586,423, or 86·6 per cent., were decided. The remaining 90,707 were undisposed of at the end of the year, 1,136 of them having been pending for more than a year. CIVIL JUSTICE, Bengal.

The number of first and second appeals preferred to the High Court during the year was 3,182, of which nearly 80 per cent. were decided, as compared with 3,098 preferred, and nearly 89 per cent. decided, in 1895. In the lower appellate courts the number of appeals instituted was 19,273, or 33 only more than in 1895; but the number decided (20,168) was 43 more, and the pending cases were reduced to 11,046. Complete or partial satisfaction of decrees was attained in 228,938 cases, against 222,769 in 1895, and the amount realised increased from Rx. 1,944,787 to Rx. 1,974,234. The munsifs, who numbered at the close of the year 291 disposed of an average of 1,917 cases apiece, or nine more than in 1895.

The number of suits instituted in the North-Western Provinces rose from 92,095 in 1895-96 to 92,665. Of these, 9,433 were left pending at the end of the year, as compared with 9,860 at the end of the preceding year. North-Western Provinces and Oudh.

The number of appeals for disposal before courts other than the High Court was 13,414 (against 14,064), of which 4,229 were left pending. In 62·2 per cent. of the cases the original decisions were upheld. *a.* North-Western Provinces.

In the High Court the number of first appeals for hearing was 744 (against 728), of which 238 only were disposed of. The institution of second appeals rose from 2,395 to 2,905. Taking the first appeals which were contested, the decrees were confirmed in 61·2 per cent. of the cases; in second appeals the percentage was 68·2.

In Oudh the number of suits instituted fell from 57,530 to 55,512, but disposals rose from 57,120 to 60,649, thus reducing the file of pending cases from 11,452 to 7,428. *b.* Oudh.

CIVIL JUSTICE,

In subordinate courts there were 3,691 appeals; 2431 of these were heard, with the result that the original decrees were upheld in 59 per cent.

In the Court of the Judicial Commissioner, 63 first appeals (out of 313) were heard, the original decrees being confirmed in 50 per cent.; and in 311 second appeals disposed of (out of 1,562 for hearing), decrees were confirmed in 72 per cent.

The necessity for strengthening the Bench, to enable the court to work off arrears, was represented to the Government of India.

Punjab.

The chief point of interest in the administration of civil justice in the Punjab during 1896 was the effect produced on the institution of original suits by the scarcity which prevailed in parts of the province during a considerable portion of the year. There was a decrease in the number of small causes lodged in the courts in scarcity-stricken districts, but the number of land suits in such districts fell but little, and in Ferozepore and Hissar actually rose considerably. The inference is that a time of scarcity is unfavourable to suits for small sums of money, which constitute by far the larger half of the whole litigation.

The total number of original suits instituted in all the courts of the province was 252,772, or 12 per thousand of the population. This was 10,000 less than the number for 1895, and about 2,000 more than the average of ten years. Six original suits were instituted in the chief courts, 18 in divisional courts, 231,564 (or over 91 per cent.) in district courts of general jurisdiction, 14,609 (5·8 per cent.) in district small cause courts, and 6,485 (about 2·6 per cent.) in cantonment small cause courts. Classifying the suits, 217,251 (86 per cent.) were for money or movable property, against 229,538 in 1895; 20,610 (8·12 per cent.) were land suits, against 18,393; and 14,887 (nearly 5·9 per cent.) were unclassed, against 14,500 in 1895.

Whereas in 1895 bankers and shop-keepers brought 121,616 suits against agriculturists, the number in 1896 was only 106,085. Out of the 217,251 suits for money or moveable property, the value of 41,282 (19 per cent.) was Rs. 10 or less; 103,560 (about 48 per cent.) ranged between Rs. 10 and 50; 40,861 (under 19 per cent.) between Rs. 50 and 100; and 31,548 (14·5 per cent.) exceeded Rs. 100 in value.

The number of original suits for disposal in courts subordinate to the chief court and divisional courts was 287,600, of which 265,900 (92·5 per cent.) were disposed of; and 21,700 were pending when the year closed, as compared with 20,000, the average for five years. About 72 per cent. of the litigation was disposed of without contest; about 28 per cent. of the suits were contested, and of these plaintiffs were successful in about 21 per cent.

The average duration of suits was for contested cases 37 days, and for uncontested 25. This represents a steady increase from 1892, when the duration was respectively 33 days and 22. The increased duration is confined to the higher courts, which can plead that they are heavily burdened with appellate work. There is, however, a tendency to subordinate civil to criminal and revenue business; and in regard to junior assistant commissioners especially, it is remarked that they do so little civil work that it is difficult to find men fit for the office of District Judge. Much assistance was given by honorary civil judges.

The number of appeals instituted in district and divisional courts has risen steadily from 14,499 in 1893 to 16,486 in 1896, and the percentage of first appeals to appealable orders has risen in the same time from 22 to 25. As to the district courts, in spite of the fact that cases undisposed of at the close of the year have increased from 573 to 921 in five years, it may be said that, as 7,723 cases were disposed of in 1893 and 9,546 in 1895, an increase of nearly 24 per cent. in three years, those courts fairly met the increased amount of appellate business thrown upon them; the duration of suits in them has not fallen below the average of four years. The same cannot be said of the divisional courts, where the pending file has risen since the close of 1895 as much as 50 per cent., and the average duration of appeals from 60 to 72 days. Fewer original suits came before the chief court, but there were more appeals from decrees and orders, and 10 per cent. more applications for revision. Disposals did not keep pace with institutions, and the number of cases pending for more

than a year has risen in two years from 473 to 609. This is no doubt partly due to the withdrawal of a judge in 1889, but the main causes are that civil litigation in the Punjab is excessive and tends to increase, while a large number of second appeals are heard on the facts, and not, as elsewhere, confined to points of law. Proposals are under consideration with the object of reducing the number of appeals and revision proceedings. Of the total litigation of the province, nearly 85 per cent. consisted of suits for money or moveable property not exceeding Rs. 500 in value, and of these suits less than one-tenth were instituted in small cause courts. Suits regarding immoveable property have risen steadily from 24,543 in 1894 to 28,136 in 1896. But though the number of suits for land assessed to revenue or subject to assessment rose by 2,288, the average value of land suits fell from Rs. 242 to Rs. 214. These figures seem to point to extra pressure on the poorer landowners in consequence of the prevailing scarcity. Civil Justice.

The number of civil suits instituted in Burma in 1896 was 48,952, being one to every 159 of the population. Burma.

In Lower Burma there was a decrease in all courts except the Recorder's court at Rangoon and the various courts of small causes. The causes of this decrease are said to be the discouragement of speculation in land by the revenue policy of the Government, the bestowal of petty civil judicial powers on village headmen, and the caution instilled by the results of the paddy buyers' combination in 1893–94.

In Upper Burma all classes of courts, except sub-divisional courts, showed an increase of litigation. The increase caused general surprise, and is attributed to administrative progress, and, in two or three districts, to scarcity of grain.

In both divisions of the province the duration of cases increased. In Lower Burma (outside Rangoon) the average rose from 35 and 21 to 36 and 22 days in contested and uncontested cases respectively. In Upper Burma, in township courts, the average duration was 28·53 days against 23·17 in 1895.

In March, 1896, the Upper Burma Civil Justice Regulation, 1886, was replaced by the Upper Burma Courts Regulation, 1896, and the Civil Procedure Code. By the first of these enactments, among other changes, two of some importance were made,—imprisonment for debt was introduced, and a fundamental change was made in the law of appeal. The old law restricted appeals, but allowed much scope for revisions, applications for which not being burdened with institution fees were freely made. The new regulation allows a somewhat greater liberty of appeal than prevails in Lower Burma, but discourages revisions. The result was a considerable reduction in appeals and revisions collectively in Upper Burma. In Lower Burma appeals were slightly more numerous. The percentage of confirmation, 63, was the same in both divisions of the province. Fourteen assistant or extra assistant commissioners were invested with appellate powers to assist deputy commissioners. In the Judicial Commissioner's court, Lower Burma, the decisions of subordinate courts fared better than in 1895, but interference was still found necessary in nearly half the cases. The Digest of Buddhist law has been printed in Burmese and is nearly ready for issue.

There were 222 courts of civil justice in the Central Provinces at the close of the year, or six more than at the commencement. The number of suits instituted or restored fell from 105,897 to 98,791, or by 6·7 per cent. The decrease was in part due to scarcity, and occurred mainly in the districts of Raipur and Bilaspur, where of late years, owing to railway construction, there has been a great increase of commercial activity and litigation. The completion of the works has, in turn, been followed by a diminution in the number of suits. On the other hand, suits under the Rent Law increased by 1,219 to 18,040, the districts in which suits for arrears of rent were most numerous being, as a rule, the most distressed ones. The growth of this class of suit has been continuous from 9,225 in 1893 to 17,208 in 1896, and coupled with the decrease in ordinary suits of small value, is a fair criterion of the agricultural distress of the last few years. The increase in rent suits has been largest in the Jubbulpore and smallest in the Chhattisgarh Division. Central Provinces.

CIVIL JUSTICE.

By the appointment of an additional Judicial Commissioner in October 1890 the arrears in the Court of the Judicial Commissioner were practically cleared off and the number of appeals disposed of by judicial assistants rose from 333 to 402, with a corresponding reduction of the arrear list from 181 to 142.

The number of applications for execution of decrees was 100,592, of which 11,617 were pending at the close of the year as compared with 13,264 at the close of 1895. The amount realised rose from Rx. 136,114 to Rx. 144,303.

Assam

The number of suits instituted in Assam continues steadily to increase. There were 30,352 in 1896, or 1 to 162 of the population, against 28,946 in 1895, or 1 to 169. The increase was chiefly in the district of Sylhet, under the heads of suits for money or movables and suits under the Rent Law. Notwithstanding this increase the total value of the suits (Rx. 222,836) represented an average value of Rs. 73 only, against Rs. 378 in 1895. Out of 30,317 cases which were disposed of, a diminishing number, 22·7 per cent. were contested, plaintiffs being successful in 61·3 per cent. and defendants in 28·7 per cent., while 8·1 per cent. were compromised.

Seven first appeals and 75 second appeals from decrees were preferred from courts in Assam to the Calcutta High Court. The Court summarily rejected or dismissed 25, confirmed 17 decrees of the lower courts, reversed 4 and modified 2, while 5 cases were remanded.

In the courts of district and subordinate judges appeals were preferred in 810 cases or 20·5 per cent. of the number in which an appeal lay; 792 cases were decided after hearing, the decrees of the lower courts being confirmed in 694 per cent., modified in 7·4 per cent., reversed in 18·6 per cent., and remanded in 4·6 per cent. of the total number.

There was a great and unexplained increase in the average duration of contested suits before district judges—from 202 days to 357. Those of subordinate judges were reduced from 279 days in 1895 to 218 days in 1896, or nearly the average of 1894.

The receipts amounted to Rx. 40,072 and the expenditure to Rx. 25,386.

Berar.

The number of officers in Berar actually employed on civil judicial work at the end of the year was 42.

The total number of suits for disposal was 33,570 (a decrease of ·6 per cent.), and 27,058 (80·6 per cent.) of these were settled.

The total amount of fees realised was Rx. 49,963, and the cost of the process-serving establishment was Rx. 6,624.

The number of appeals for disposal was, 1,872, of which 1,403 were settled and 449 were left pending. In 437 of these cases the original judgment was confirmed.

Madras.

The number of original suits instituted in all the courts in the Madras Presidency increased from 314,673 to 335,980, but the number of appeals fell from 13,139 to 11,069.

4,371 Village Courts dealt with 85,584 cases, an increase of 20 per cent. The regular courts in the Mufassal considered 227,826 suits, of which 86·21 per cent. came before the District Munsifs. They actually disposed of 232,217 suits and 9,171 appeals as against 229,256 and 10,637 respectively in 1895.

The Presidency Court of Small Causes tried 21,701 suits. The High Court, on its original side, disposed of 458 cases, and in its appellate jurisdiction, of 1,808 appeals out of 2,052 received.

One of the main features of the year is the larger number of suits tried, and the reduction of arrears in the Village Courts.

Bombay

The total number of suits instituted in all the Bombay Courts was 194,664, showing a decrease of 21,930 on last year, but the Courts disposed of 203,068 suits, including arrears from last year, leaving 32,259 suits still pending at the end of the year. The number of miscellaneous cases settled by the Presidency Small Causes Courts, and the Civil Courts up-country was 21,213.

The Appellate Courts disposed of 7,937 only out of 12,282 appeals.

The total receipts of all the courts amounted to Rx. 359,916; the expenditure to Rx. 476, 558. CIVIL JUSTICE.

The Deccan Agriculturists Relief Act was administered by 36 subordinate courts in the collectorates of Poona, Sátára, Sholapur, and Ahmednagar. The prevailing scarcity caused a considerable decrease in this class of litigation.

The total number of suits instituted in Coorg was 3,634 as against 3,898 in the preceding year. COORG.

Of the 3,987 suits for disposal 3,681 were disposed of.

There were 109 appeals for disposal, of which the First Assistant Commissioner's court dealt with 42 and the District Judge's Court with 55, leaving 11 cases pending. In 53 cases the original judgment was upheld.

IV.

REGISTRATION.

Registration. General.

In a previous Statement was given a short account of the Registration Law. It will suffice to say here that the law makes compulsory the registration of all non-testamentary documents affecting immovable property of the value of Rx. 10 or upwards, while it permits the optional registration of other documents. Officers are established in every district for the registration of documents, and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. At the end of 1896–97 there were in British India 1,964 registration offices; the total number of documents registered during the year was 2,889,126, or 6 per cent. more than in 1895–96; this total does not include the 153,282 registrations under the Dekkhan Agriculturists Act. The total registration fee receipts of the year 1896–97 were Rx. 455,000, as compared with Rx. 424,000 in the preceding year; and the cost of the registration offices was Rx. 266,000, leaving a surplus of Rx. 189,000, against Rx. 162,000 in the year 1895–96. It is claimed for the Indian registration system that it operates to prevent fraud, as well as to secure and simplify titles.

Bengal.

The number of registration offices in Bengal increased from 397 to 408. The total number of documents registered rose from 1,144,508 in 1895-96 to 1,312,153 in the year 1896–97. The increase occurred under documents of which registration is optional, as well under those for which it is compulsory, and was attributed to the hard times caused by famine and dearness of food nearly 87 per cent. of all the documents brought for registration related to immovable property. The number of registered transfers of holdings by ryots (tenants), paying at fixed rates or enjoying occupancy right, rose from 195,203 in 1895–96 to 226,071 in 1896–97; the transfer was made in 158,433 cases to other ryots, and in 26,051 cases to money-lenders. The average price of occupancy holdings was equal to 14 years' purchase of the rent. The number of ceremonies registered under the Muhammadan Marriage Act fell from 23,380 in 1895-96, the highest number since the law was passed, to 19,685. The Act was extended to four additional districts, and is now in force in 29 districts, as compared with 25 districts in the year 1895–96; and 15 new offices for registering such marriages were opened in the year.

Registrations under the Bengal Land Records Maintenance Act of 1895 began during the year in parts of three Behar districts and in a small part of Midnapore. The famine militated against a successful beginning, especially in Chumparan. In the Muzaffarpur district areas more than eight mutations were registered per village. The number of transfers of holdings were found to be generally 12 times as numerous as successions. So far as can be judged from eight months' work, the Act will answer its purpose fairly well. The tenants are "certainly eager to have their transfers duly recorded in the "Government papers"; and "the Act cannot but be popular with the "tenantry." The Inspector-General, a Moslem officer, predicts that tenants "will more and more have recourse to this law, as they understand its provisions, "and . . . . . the Act will work successfully."

North-West Provinces and Oudh.

The number of registration offices in the North-West Provinces and Oudh rose from 289 to 291, and the total number of documents registered rose from 230,268 to 242,616. The rate of increase was largest under documents for which registration was optional. The increase in sales and mortgages is attributed to the difficulties caused to the people by famine. There was an increase of 4 per cent. in the registration receipts as compared with 1895–96. The surplus of receipts over expenditure was Rx. 21,900, compared with Rx. 21,000 in the previous year. The number of mortgages registered showed an increase of 11 per cent. as compared with the preceding year; the number of leases increased 6 per cent.; sales of land increased 15 per cent. The number of

documents relating to movable property, for which registration was optional, fell from 49,608 in the previous year to 48,888 in the year 1896–97. The total value of the property regarding which documents were registered during the year was Rx. 9,434,000, as compared with Rx. 9,330,000 in the previous year. Nine prosecutions for breach of the Registration Law were instituted, as in 1895-96; in five cases the accused were convicted and punished. REGISTRATION.

The number of registration offices in the Punjab was 289, or 6 more than at the end of the previous year The total number of documents registered was 170,425, or 35 per cent. above the previous year's total, while the fee receipts increased by 32 per cent., and the surplus of the Department by 37 per cent. The increase of registration business, following after a previous year of increase, was attributed to the pressure on the landed classes caused by the partial failure of the crops, and to the growing tendency to reduce all contracts to writing and to secure them by registration; the increase was most marked under the head of both compulsory and optional registrations of deeds of sale and mortgage of agricultural land. The proportion of optional registrations of immovable property was 32 per cent. of the total transactions, and the increase under optional registrations was considerably larger, in proportion, than in documents of which registration was compulsory. The total value of property to which registered documents related was Rx. 5,683,000, or Rx. 757,000 more than in the preceding year. The registration receipts rose from Rx. 31,698 to Rx. 41,660, and the surplus from Rx. 18,960 to Rx. 25,720. Punjab.

The number of registration offices in Lower Burma was 110, or five less than in the previous year; and the number of registrations decreased from 15,705 in the previous year to 15,183. The decrease was attributed to a fall in the value of real property and to continued tightness in the money market. The aggregate value of all property registered was Rx. 2,081,000, or 1½ per cent. less than in 1895–96. The fee receipts fell to Rx. 5,299, or 4 per cent. below the income of 1895–96. The surplus of receipts over expenditure was Rx. 2,845, against Rx. 3,061 in the previous year. Burma.

Thirty-one registration offices were open in Upper Burma as compared with 29 in the year 1895-96; the number of documents registered was 4,268, as compared with 2,799 in the previous year; the value concerned rose from Rx. 161,300 to Rx. 264,000. The chief increase was under the head of "mortgages." The total income from fees was Rx. 1,182 as compared with Rx. 635, and the expenditure was Rx. 572 as compared with Rx. 364 in the previous year. In both Upper and Lower Burma the majority of registered deeds continue to be sales and mortgages of land; but the whole registration business is still small.

The number of registration offices was 90, against 89 in the previous year, and the number of documents registered during the year in the Central Provinces was 39,494, or 4 per cent. more than in the preceding year. The increase was mainly under compulsory registrations, and was attributed to the stimulus given by successive bad seasons to sales of land; there was a decrease in the number of mortgages. The value of the property concerned was Rx. 1,360,000, a decrease of 10 per cent., as compared with the previous year. Of the documents registered 78 per cent. were of classes for which registration is compulsory. The cost of the Registration Department was 32⅓ per cent. of the receipts, and the net revenue was Rx. 9,408, as compared with Rx. 9,036 in the preceding year. Central Provinces.

In Assam there were 25 registration offices, as in the previous year; 40,878 documents were registered, or 7 per cent. more than the total of the preceding year; the increase was mainly in documents, of which the registration is permissive. The value of the property registered fell from Rx. 687,000 in the previous year to Rx. 681,000. The fee receipts were Rx. 5,148, and the expenditure was Rx. 2,831, leaving a surplus of Rx. 2,317, which is the largest surplus hitherto obtained in Assam. Assam.

The marriages registered under the Muhammadan Marriage Act were 367, as compared with 222 and 345 in the two preceding years; the number of these marriage registrations in Assam, after decreasing for several years, is now double what it was in 1893–94.

REGISTRATION. Berar.

The number of registration offices in Berar was 68, as at the end of the previous year; the number of documents registered was 36,507, or 7½ per cent. more. The value of the property registered was Rx. 1,084,000, or about the same as in the preceding year; the fee receipts increased 7 per cent.; the expenditure increased 1 per cent, and the surplus increased from Rx. 3,400 to Rx. 4,000.

Madras.

Four new registration offices were opened in Madras, bringing up the total to 423. The number of documents registered was 824,946, showing a decrease of 2½ per cent. compared with the previous year, and of 5½ per cent., as compared with the year 1892–93, when the number of registrations was the largest on record. The decrease was chiefly in documents of which registration was optional, was confined to the southern districts, and was attributed partly to the bad season in those districts, partly to the great twelfth-year festival at Kumbakonam, to which great crowds resorted, and partly to a new plan—adopted by local money lenders—of advancing money on notes of hand, written on one-anna stamped paper, and unregistered. Nearly 93 per cent. of all the registrations in Madras concerned immovable property, and 68 per cent. were deeds for which registration is compulsory. The total value of the property concerned in all the registrations was 17½ millions, against 18¾ million Rx. in the preceding year. The registration receipts were Rx. 120,298; the expenditure was Rx. 97,499; and the surplus was Rx. 22,798, or 9 per cent. more than in the previous year. The number of documents of which registration was refused fell from 1,941 to 1,680; of this latter total 357 cases were due to denial of execution, 478 to non-appearance of executants; and 405 to unwillingness to complete registration.

Bombay.

The number of registry offices in Bombay was 251, or two more than in the previous year. The number of registrations was 199,893, or 2 per cent. less than in 1895-96. The decrease took place entirely under compulsory registrations, which formed more than 86 per cent. of the whole number. Registered deeds of sale and mortgages of immovable property numbered 66,084 and 79,874 respectively, being in each case 3 per cent. below the corresponding figure for 1895-96. The value of the property affected was Rx. 10,857,000. The fee receipts were Rx. 58,237. The registration surplus of the year, including Rx. 2,588 under the Joint Stock Companies Act, was Rx. 31,814, as compared with Rx. 31,462 in the year 1895-96.

Under the special law for the protection of Dekkhan agriculturists in the four districts of Poona, Sattara, Ahmadnagar and Sholapur, there were 153,282 registrations, or 6 per cent. above the total of the previous year. Of the registered sales, leases, and mortgages of land, 47·2 per cent., or somewhat larger proportion than in the three previous years, were between agriculturists on both sides, and 52·8 per cent. between agriculturists and money-lenders. The aggregate value of property concerned in these special registrations was Rx. 820,000, or 6 per cent. larger than in the previous year. There was an increase of nearly 6 per cent. in the fee receipts; and the net deficit on these registration proceedings was Rx. 989, as compared with Rx. 884 in the preceding year, and over Rx. 1,600 in earlier years.

JOINT STOCK COMPANIES.

JOINT STOCK COMPANIES.

During the year 1896–97, in all provinces of India, the number of new joint stock companies registered was 388, with a nominal capital of Rx. 8,687,000 and a paid-up capital of Rx. 279,000; while 101 companies, with a paid-up capital of Rx. 696,000, ceased to work, 168 new companies had been registered in the previous year. At the end of the year there were in operation 1,596 companies, with a nominal capital of Rx. 49,562,000 and a paid-up capital of Rx. 31,157,000. The companies work chiefly in the provinces of Bengal and Bombay; 85 per cent. of all the paid capital pertains to those two provinces: in Madras the paid-up capital was Rx. 2,049,000, and in the North-West Provinces it was Rx. 1,198,000; in no other province did the aggregate paid-up capital of registered companies reach

Rx. 600,000. The distribution of paid-up capital among registered companies for different classes of industry was somewhat as follows :— JOINT STOCK COMPANIES.

	Rx. of Paid-up Capital.		Rx. of Paid-up Capital.
Banking and insurance	4,271,000	Brewery companies	170,000
Trading and shipping	4,539,000	Mills and presses	14,880,000
Mining and quarrying	1,857,000	Tea and planting	3,741,000

The companies with the largest aggregate subscribed capital, Rx. 14,880,000, were for weaving and spinning or for pressing cotton, jute, wool, and silk, and nearly two-thirds of the capital of such undertakings belonged to the Bombay Presidency. The capital invested in mills of these kinds increased only $\frac{3}{4}$ per cent. during the year; while the capital invested in mining industries decreased. In the 13 years 1884-97 the number of joint-stock companies at work has risen from 694 to 1,596; the paid-up capital has risen from $20\frac{3}{4}$ to $31\frac{1}{4}$ millions.

In Bengal 286 new companies were registered during the year, with a nominal capital of Rx. 3,158,000. Fifty-nine companies were wound up during the year. A new feature was the registration of 28 Native provident companies limited by guarantee, but possessing no capital. Bengal.

In Bombay 73 new companies were registered. Twenty-two companies went into liquidation. At the end of the year 363 joint-stock companies were in existence, with a paid-up capital of Rx. 12,535,000. Companies, with a paid-up capital of Rx. 9,550,000, were working cotton mills and presses. Bombay.

PATENTS AND DESIGNS.

The total number of applications filed in 1896 for the registration of inventions under the Patents' Law was 460, as compared with 417 in the preceding year. Of these, 31 were refused or abandoned, and 119 were undecided at the end of the year. Of the applications, 107, as compared with 127 in the year 1895, were referred for the opinion of experts. The number of specifications filed during the year was 312, or 8 less than in the preceding year. The number of exclusive privileges kept alive by payment of the prescribed fees was 236, as compared with 172 and 133 in the two previous years. There were 27 applications for the registration of designs, of which 10 were rejected. The number of applications for patents made by natives of India rose from 22 in 1893, and 42 in 1895, to 49 in 1896. The increase in other applications was mainly due to the desire of European and American inventors to acquire Indian protection for their inventions. The fee receipts of the Indian Patent Office during the year were, after refunds, Rx. 2,763, against Rx. 2,404 in the previous year: the charges for 1896 were Rx. 995. PATENTS.

V.

FINANCE.

FINANCE.

[*The denomination* Rx. *means tens of rupees.*]

Gross Revenue and Expenditure.

THE gross revenue and expenditure of British India in 1896-97 may be thus compared with the figures for 1895-96 :—

	1895-96.	1896-97.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.
Revenue	98,370,167	94,129,741	—	4,240,426
Expenditure	96,836,169	95,834,763	—	1,001,406
Surplus	1,533,998	—	Result worse by Rx.	— 3,239,020
Deficit	—	1,705,022		

In the gross revenue are included very large receipts, amounting altogether to about one-third of the whole, which (being derived from the working of the railways and canals, the operations of the Postal and Telegraph Departments, the interest received on loans to municipalities, landholders, &c., and on the investments of the Currency Department, the contributions by officers towards their pensions, the sale of stores, and the receipts of the various administrative departments) are rather of the nature of a set-off against the corresponding charges than revenue proper; and, on the other hand, there are included in the expenditure, first, the refunds and drawbacks, assignments and compensations, which are a direct set-off against the revenue; secondly, the charge which is incurred for the production of opium, and which is subject to variations caused by the state of the season and of trade; thirdly, the charge for the establishment and maintenance of public works, which necessarily increases as more works are brought into operation. The financial position of the Government can, therefore, be much better appreciated by looking at the net income and expenditure, a statement of which is now annually laid before Parliament.* The following is the comparison of the net revenue, *i.e.*, of the gross revenue after the deduction of the refunds and drawbacks, &c., and of the opium charges, with the net expenditure, *i.e.*, the expenditure after the deduction of the various departmental receipts :—

Net Revenue.

NET REVENUE.

	1895-96.		1896-97.		Increase or *Decrease* (—).	
Land Revenue, &c. :	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	25,064,280		22,814,685		*—2,249,595*	
Forests	1,656,647		1,727,763		71,116	
Tributes from Native States	751,454		863,733		112,279	
		27,472,381		25,406,181		*—2,066,200*
Opium : Net Receipts	—	5,049,894	—	3,915,624	—	*—1,134,270*
Taxation :						
Salt	8,467,493		8,035,543		*—431,950*	
Stamps	4,676,067		4,721,089		45,602	
Excise	5,652,923		5,536,601		*—116,322*	
Provincial Rates	3,696,480		3,527,252		*—169,228*	
Customs	4,888,383		4,356,384		*—531,999*	
Assessed Taxes	1,822,418		1,860,348		37,930	
Registration	423,573		457,075		33,502	
		29,627,357		28,494,292		*—1,133,065*
Miscellaneous Receipts :						
Mint	*—12,311*		94,812		107,123	
Exchange on Remittance Transactions.	178,306		144,233		*—34,073*	
Miscellaneous	226,458		233,143		6,685	
		392,453		472,188		79,735
TOTAL NET REVENUE	—	62,542,085	—	58,288,285	—	*—4,253,800*

* *See* Parliamentary Paper 102, of 1898, pages 84 and 85.

Net Expenditure.

NET EXPENDITURE.

	1895-96.		1896-97.		Increase or *Decrease* (—).	
Debt Services:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Interest on Public Debt (other than that charged to Railways and Irrigation) and other Obligations.	—	3,219,747	—	2,371,398	—	*—848,349*
Military Services:						
Army	24,420,146		23,302,008		*—1,118,138*	
Buildings and Roads: Military	1,156,239		1,095,738		*—60,501*	
Special Defence Works	101,349		94,610		*—6,739*	
		25,677,734		24,492,356		*—1,185,378*
Collection of Revenue	—	6,427,548	—	6,533,380	—	105,832
Commercial Services:						
Post Office	*—69,697*		*—80,363*		*—10,666*	
Telegraph	*—188,087*		*—124,765*		63,322	
Railways	1,620,268		2,659,981		1,039,713	
Irrigation	676,358		100,370		*—575,988*	
		2,038,842		2,555,223		516,381
Civil Services:						
Civil Departments	13,488,338		13,766,628		278,290	
Miscellaneous Civil Charges	5,242,182		5,167,511		*—74,671*	
Famine Relief and Insurance	586,485		2,126,355		1,539,870	
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	7,661		12,750		5,089	
Buildings and Roads: Civil	3,940,441		3,991,343		50,902	
Provincial and Local Surpluses or Deficits.	379,109		*—1,023,637*		*—1,402,746*	
		23,644,216		24,040,950		396,734
TOTAL NET EXPENDITURE	—	61,008,087	—	59,993,307	—	*—1,014,780*

Result of the Year.

Thus, there was a decrease of the net revenue by Rx. 4,253,800, and of the net expenditure by Rx. 1,014,780, making the result worse by Rx. 3,239,020, and producing a deficit of Rx. 1,705,022 in 1896-97, as compared with a surplus of Rx. 1,533,998 in 1895-96. This is the result of a reduction of the net revenue in India by Rx. 4,276,784, and of an increase of the net expenditure in India by Rx. 336,427, and in England by 88,776*l.*, while in exchange there was an improvement of Rx. 1,462,967, the gold value of the rupee having risen from an average of 13·64*d.* in 1895–96 to 14·45*d.* in 1896–97.

Alterations in Net Revenue and Expenditure.

Omitting the figures of exchange, the net revenue showed a reduction of 4,263,833, while the net expenditure was increased by 438,154. The influence of the famine from which India suffered in 1896–97 was most shown in the head of Land Revenue, under which there were large remissions, suspensions, and short collections, resulting in a receipt less by Rx. 2,249,595 than in 1895–96; but it is mainly to the same cause that the reductions are to be attributed of Rx. 431,950 under Salt, Rx. 169,228 under Provincial Rates, and Rx. 116,322 under Excise. In some of these heads the deterioration was, no doubt, partially due to the panic caused by the plague in Bombay and Karachi; but this more especially affected the Customs duties, which showed a diminution of Rx. 531,999, one half of which occurred from smaller imports of cotton goods, while the export duty on rice fell heavily owing to that article being largely diverted from Burma to the famine-stricken districts of India. Under Opium there was a net reduction of Rx. 1,134,105, attributable to various causes; although the number of chests sold in Calcutta was rather greater in 1896–97 than in the previous year, the increase being 1,305, the receipts were less by Rx. 389,997, owing to the fall of the average price from Rs. 1,390 to Rs. 1,244 per chest; on the Bombay side, where the pass duty was reduced from Rs. 650 to Rs. 600, the number of chests passed was less by 3,724, and the receipts fell by Rx. 321,060; the revenue from excise opium, &c., was less by Rx. 3,627; and the payments to the cultivators and other charges were enhanced by Rx. 419,421. On the other hand, there were improvements of Rx. 112,279 under Tributes, the larger payment by Mysore according to treaty

FINANCE.

coming into force, of Rx. 106,951 under Mint, owing to the coinage of dollars for the Straits Settlements, and of Copper to meet the demand for payment on famine relief works, of Rx. 71,116 under Forest, and of Rx. 82,361 under the remaining heads taken together.

The increase of Rx. 438,154 in the net expenditure is the result of various alterations, of which the most important are the direct consequences of the famine and the plague. Under famine relief there was an enhancement of the charge by Rx. 2,055,700, but to some extent this was met by the absorption of Rx. 521,354 of the grant for protective works. The Railway Revenue Account proved worse by Rx. 1,580,078, the receipts having especially fallen off on the lines converging on Bombay. The cost of the Civil Departments was greater by Rx. 850,986, chiefly under Law and Justice, and Police, and that of the collection of the revenue by Rx. 107,287, while under Superannuation there was an increase of Rx. 98,863. Against these there were large reductions under four heads: in Interest (apart from that on debt devoted to public works), Rx. 536,852 ; in Irrigation, Rx. 576,405, the drought having induced larger applications for water; in the Army, Rx. 764,553, owing to the termination of the Chitral Relief Expedition; and in the adjustments with the Provincial Governments Rx. 1,402,746, as, instead of the net sum of Rx. 379,109, which had been paid to them by the Imperial Government in 1895–96, the Local Governments contributed Rx. 1,023,637 from their balances towards the total expenditure. Under other heads there was a net diminution of Rx. 12,605.

In the tables in the Appendix, the net revenue and expenditure in India of the several Provinces under the chief heads are shown for the years 1895–96 and 1896–97, to which is added a table of the net payments in England, with the loss by exchange thereon, the figures in all the tables combined resulting in the totals of net revenue and expenditure given above. The revenue and expenditure of Berar, which form no part of the general finances of the Government of India, are not given in this chapter, but are referred to under Hyderabad, in the chapter on Native States. The surplus revenues of the various Provinces, as shown in the Summary on page xl of the Appendix, were applied to meet the general charges in India and in England in approximately the following proportions:—In 1895-96: Bengal 36, North-West Provinces 17, Bombay 17, Madras 11, the Punjab 10, Burma 5, Central Provinces 3, and Assam 1. In 1896-97: Bengal 38⅓, Bombay 15, Madras 14, North-West Provinces 13⅓, the Punjab 11, Burma 5⅔, Central Provinces 1⅓, and Assam 1⅓.

CAPITAL OUTLAY ON PUBLIC WORKS.

Capital Outlay on Public Works.

The total capital outlay on railways and irrigation works, the expenditure in England being converted into Indian currency at the average rate obtained for the Secretary of State's bills during the year, was as follows :—

	1895–96.	1896–97.	Increase.	Decrease.
Amount supplied by borrowing or from the Cash Balances, without being charged against the Revenue of the Year:	Rx.	Rx.	Rx.	Rx.
State Railways	3,387,227	4,243,974	856,747	–
Irrigation Works	699,967	740,448	40,481	–
TOTAL	4,087,194	4,984,422	897,228	–
Amount defrayed from Revenue:				
Provincial Railways	7,661	12,750		
Surveys of Railways charged to revenue in previous years	20,256	–	–	547,616
Protective Railways	529,867	–		
Protective Irrigation Works	38,317	46,830		
Other Irrigation Works*	19,634	8,539		
TOTAL Direct Outlay by the State	4,702,929	5,052,541	349,612	–
In addition to this, the outlay by companies guaranteed or subsidised by the Government was	1,799,664	3,674,211	1,874,547	–
So that the TOTAL Outlay was	6,502,593	8,726,752	2,224,159	–

* Excluding capital outlay on the minor works, against which interest is not charged in the Accounts.

DEBT.

Debt.

The following table shows the alteration in the amount of the debt that took place in 1896-97:—

		Amount of Debt on 31 March 1896.	Amount of Debt on 31 March 1897.	Increase.	Decrease.
In India - - - - - -	Rx.	103,788,928	109,115,053	5,326,125	—
In England - - - - - -	£.	113,903,732	113,883,233	—	20,499

In 1896-97 the Government of India raised a loan at 3 per cent. for Rx. 4,000,000, at an average price of Rs. 103 1 10½ per cent.; and, following on this, they offered to the holders of the 3½ per cent. loans of 1853 54 and 1893-94 the alternative of discharge or of conversion into the 3 per cent. loan. The latter offer was accepted to the extent of Rx. 4,887,160, leaving Rx. 797,790 to be discharged. It having been determined to increase from 80 to 100 millions of rupees the portion of the currency reserve which is allowed to be invested in Government securities, an Act (No. XXI. of 1896) was passed for the purpose, and the sum of 20 millions of rupees was then transferred to the Government Treasury from the Currency Department, which received in exchange 3 per cent. promissory notes for Rx. 2,048,650, the calculation being made at the price of the stock at the time of transfer. A second instalment (Rx. 120,000) of the Gwalior 4 per cent. loan was repaid, and other debt was discharged to the amount of Rx. 602,525. In England, 2,400,000*l.* India 2½ per Cent. Stock was issued, at an average price of 103*l.* 0*s.* 6*d.* per cent., and the proceeds were applied to the discharge of 2,000,000*l.* India 3¼ per Cent. Debentures, 313,700*l.* South Indian Railway Debentures bearing interest at 3½ per cent., and 5,190*l.* of outstanding India 4 per Cent. Stock. The temporary debt was reduced by 1,000,000*l.*, and 101,609*l.* of India 3½ per Cent. Stock was cancelled by the operation of the sinking funds.

SAVINGS BANKS AND OTHER OBLIGATIONS.

Savings Banks and other Obligations.

The following table shows the amount received and paid on account of savings banks, loans to municipalities, and other obligations in India:—

	1895-96.	1896-97.
	Rx.	Rx.
Savings Banks, &c. (net deposits *or withdrawals*) - - -	595,080	*—288,382*
Loans to Port Trusts, Municipalities, Native States, &c. (net receipts *or disbursements*) - - - - - - - -	*—74,446*	34,930
Provincial Advances and Loans (*net disbursements*) - - -	*—164,097*	*—829,486*
Other Obligations (net receipts *or disbursements*) - - -	349,586	*—413,561*
TOTAL - - -	706,123	*—1,496,499*

CASH BALANCES.

Cash Balances.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year:—

		On 1st April			Increase or Decrease.	
		1895.	1896.	1897.	In 1895-96.	In 1896-97.
In India - -	Rx.	22,529,488	16,500,510	13,873,752	*—6,028,978*	*—2,626,758*
In England - -	£.	2,503,124	3,393,798	2,832,354	890,674	*—561,444*

FINANCE

COINAGE AND PAPER CURRENCY.

Coinage and Paper Currency.

The value of the coinage at the Mint of Calcutta was:—

	1895-96.	1896-97.
	Rx.	Rx.
Silver	292,713	568,665
Copper	82,062	176,901
TOTAL	374,775	745,566

The coinage of silver was limited to half-rupees, quarter-rupees, and eighth-rupees.

The receipts and expenditure of the Indian Mints were as follows:—

	1895-96.	1896-97.
	Rx.	Rx.
Receipts	40,918	156,635
Expenditure	53,229	61,823
Net Receipts *or Charges*	— *12,311*	94,812

On the 31st of March 1897 the amount of notes in circulation was Rx. 23,753,307, being less by Rx. 2,187,392 than on the corresponding date in 1896. The reserve was, in silver coin, Rx. 13,753,312, and in Government securities, Rx. 9,999,995, the Act XXI. of 1896 having permitted this increase, as mentioned on page 2.

OPIUM.

OPIUM.

General.

The opium revenue is raised partly by a monopoly of opium in Bengal and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the North-West Provinces and Oudh. A few thousand acres of opium are grown in the Punjab for local consumption. The cultivator of opium in the monopoly districts receives advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is dispatched to the Government factories at Patna and Ghazipur to be prepared for the China market. The price for some years had been Rs. 5 per seer (two lbs.); and was raised to Rs. 6 per seer, with effect from the spring of 1895. The chests of manufactured opium are sold by auction at monthly sales which take place in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. A sufficient reserve has in past years been retained to supply the deficiencies of bad seasons; but, owing to a succession of six bad opium crops, no reserve at present exists. A small quantity of opium is used by the Indian Excise Departments. In 1861 the average price of opium sold by auction for the China market was as high as Rx. 185 per chest of 140 lbs. weight, but since that year it has fallen; in February 1895 the price rose to Rx. 154, the highest average at any monthly sale for the previous 23 years; it fell to Rx. 97 in September 1897. In the calendar year 1897 the average price per chest was Rx. 105; it had been Rx. 131 in 1896 and Rx. 141 in 1895.

Opium is grown in the Native States of Rajputana and Central India. Some of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy

dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty, which had been Rx. 60 per chest for several years until December 1894, when it was raised to Rx. 65. The duty was again reduced to Rx. 60 in July 1896, and has since been further reduced to Rx. 50 in October 1897. OPIUM.

The yield of the opium revenue during recent years has been :—

	1889–90.	1892–93.	1895–96.	1896–97.
Opium Receipts :	Rx.	Rx.	Rx.	Rx.
Auction sales of monopoly opium - -	6,477,079	6,096,227	5,240,349	4,850,352
Duty on Bombay or Malwa opium - -	1,890,854	1,675,653	1,659,697	1,338,282
Cost of opium issued to the Excise and other Departments.	215,123	221,300	223,876	220,601
Total - - -	8,583,056	7,993,180	7,123,922	6,409,238
Opium expenditure, chiefly in Bengal - -	1,605,107	1,602,496	2,068,941	2,486,692
Net Opium Revenue - - -	6,977,949	6,390,684	*5,054,981	3,922,546

* These receipts are outside the provincial opium duties of Rx. 993,000, shown in the Excise section of this Statement as the receipts of 1896–97.

The number of chests of Bengal opium sold in the two years 1889–91 was 57,000, but it had fallen to 37,695 chests in the year 1895–96, and was 39,000 in the year 1896–97. The number of chests of Bombay opium exported to China was 31,233 in the year 1893–94, 21,693 in the year 1895–96, and 22,289 in the year 1896–97.

The decrease in the net opium revenue for 1896–97 was due partly to the enhanced rate (Rs. 6 instead of Rs. 5 per seer) paid to opium producers for their crop, and partly to the heavy fall in prices at the Calcutta sales, and partly to the reduction in the pass duty on the exports of Bombay (or Malwa) opium. The net opium revenue during the past 26 years has been as follows :—

Net Opium Revenue in	Rx.	Net Opium Revenue in	Rx.
1872–73 - - - -	6,870,423	1893–94 - - -	4,750,964
1878–79 - - - -	7,700,671	1894–95 - - -	5,707,652
1880–81 - - - -	8,451,276	1895–96 - - -	5,054,981
1888–89 - - - -	5,964,404	1896–97 - - -	3,922,546

The area actually cultivated with the poppy in the Ganges Valley has fluctuated much, thus :— BENGAL.

Area of Bengal Opium Cultivation in Acres.

1886 - -	594,921	1896 - - -	519,640
1894 - - -	458,181	1897 - - -	561,975

The rise in the two later years occurred entirely in the districts of the Benares agency, and was partly due to the increase of 20 per cent. in the price paid by Government to the cultivators for their raw opium. Notwithstanding the increased price, the area of opium crop still continues to shrink in the

OPIUM.

Behar agency. The opium harvest has for seven successive seasons been much below the average of former years; the yield was very poor in 1894, was a little better in 1895, and somewhat larger again, though still much below the old average, in 1896 and in 1897. The average yield of opium was the same as in the preceding year, namely 13¼ lbs. per acre, as compared with 11 lbs. per acre in 1895 and with a normal outturn of 18 lbs. per acre in a year of good harvest. The opium reserve in Calcutta has all disappeared, though the sales of 1897 and 1898 have been reduced to 39,000 chests, or 19,000 chests below the number that used to be sold every year.

The number of prosecutions for breaches of the Opium Laws was 1,409, as compared with 1,576 in the preceding year; in these cases 1,208 persons were convicted, and 246 were acquitted, as compared with 1,310 and 259 respectively in the previous year.

SALT.

SALT.

General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from ⅛th of a rupee (in Burma) to 3¼ rupees (in Bengal) per maund of 82⅔ lbs.; during the year 1895–96 the rate was 2½ rupees over the whole of India, except Burma, where it was one rupee per maund. The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India and part of Burma and Central India; the salt lakes and pits of Rajputana, which supply the North-Western Provinces, Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. The regions supplied from each source contract or extend, according to varying circumstances of the season, or of markets, or of means of carriage; for instance, when an unusually wet season prevented salt production by solar evaporation at the Sambhur Lake in Rajputana, special supplies from the Bombay coast factories were carried inland, and partly made up for the deficiency; when a railway was opened to the Punjab mines, salt made its way thence further south and east.

The SALT REVENUES and CHARGES in the Year 1896–97 were as follows :—

PROVINCE.	Price of and Excise on Salt made Locally.	Duty on Imported Salt from England.	Duty on Salt Imported from other Sources.	Miscellaneous.	TOTAL.	Charges.	Net Salt Revenue.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Northern India - -	1,833,343	—	—	15,412	1,848,755	117,551	1,731,204
Burma - - - -	22,966	108,933	10,029	—	140,928	444	140,484
Bengal - - -	—	1,352,786	1,133,909	13,424	2,500,119	5,080	2,495,039
Madras - - -	1,677,602	505	655	13,400	1,694,164	230,299	1,463,865
Bombay - - -	2,157,746	838	731	78,424	2,237,739	169,978	2,067,761
TOTAL, 1896-97 -	5,692,657	1,463,062	1,145,324	120,662	8,421,705	523,352	7,898,353
1895-96 -	6,113,809	1,713,111	975,842	59,083	8,861,845	521,044	8,340,801

The charges above shown do not include a sum of about Rx. 300,000 paid under treaties to Native Chiefs who have assigned the management of their salt sources to the British Government. The large decrease of Rx. 442,000 was due mainly to the stringency and high prices of food caused by the famine. The rate of salt consumption per head of the population differs widely in the several provinces. In ordinary years it is over 17 lbs. per head in Burma, where the rate of salt duty is one rupee a maund; it is 18 lbs. ahead over a great part of Madras, where the duty is 2½ rupees per maund; it is about 10¼ lbs. per head in Bengal, where the duty is 2½ rupees per maund; and it is about 8 lbs. a head in the North-West Provinces and Oudh, where the duty is also 2½ rupees per maund. The small difference, about 15 per cent., due to longer distance from salt

sources, in the retail prices of salt between northern and southern India, does not explain the great differences in the rate of consumption per head. SALT. General.

During the last eleven years the total salt consumption of India has been as follows:—

In the Year	Total Actual Consumption of Duty-paid Salt in India, inclusive of Burma.
1885–86	32,289,000 maunds, each maund being equal to 82⅔ lbs. avoirdupois.
1886–87	34,330,000 ,,
1888–89 (The rate of duty was raised in January 1888 from 2 Rs. to 2½ Rs. per maund).	31,474,000 ,,
1890–91	33,722,000 ,,
1892–93	35,451,000 ,,
1893–94	34,029,000 ,,
1894–95	34,555,000 ,,
1895–96	35,090,000 ,,
1896–97	34,639,000 ,,

These figures are not absolutely accurate, because the amount of local salt consumed in Burma is not precisely known, but in the foregoing figures it is estimated at 600,000 maunds in 1896-97, at 500,000 maunds for the year 1895–96, at 400,000 maunds in the years 1889–95, and at 560,000 maunds in earlier years.

The Northern India Salt Department controls the salt sources of the Punjab and of Rajputana, whence are supplied the wants of the Punjab, Oudh, the North-Western Provinces, the northern districts of the Central Provinces, and the greater part of the Rajputana and Central India States. The sales of duty-paid and free salt at the northern salt sources amounted in 1896-97 to 7,733,000 maunds, or nearly 3 per cent. below the sales of the previous year. Compared with the preceding year sales of salt increased largely at the Sambhur Lake and the Pachbadra salt sources, while they decreased at the Punjab salt mines. The season was again unfavourable for the manufacture of salt at the Sambhur Lake or at other salt sources of Rajputana. The price of salt ex-duty at the Sambhur Lake, where about one-half of the total supply is produced, was 4 annas per maund as in the preceding year. Of the total duty-paid salt consumed, the Sambhur Salt Lake supplied 3,926,000 maunds, the Mayo mine in the Punjab supplied 2,026,000 maunds, and the remainder came from minor salt sources: the issues of salt from the Kohat mines fell 35 per cent. in consequence of the very heavy sales of the previous year. The enhancement of salt duty at the Kohat mines, from half a rupee to two rupees per local maund of 102 lbs., took effect in July 1896. The gross receipts on account of salt revenue increased from Rx. 1,861,000 in 1895–96 to Rx. 1,876,000 in the year 1896–97; the charges came to 6½ per cent. on the receipts, as in the previous year. The average wholesale price of duty-paid salt, at the chief marts of the provinces supplied from the northern salt sources, ranged during the year: in the Punjab, from $2\frac{15}{16}$ rupees a maund at Rawulpindi to 8½ rupees at Amritsar; in the North-West Provinces, from $3\frac{3}{16}$ rupees at Agra and Cawnpore to $3\frac{9}{16}$ rupees at Allahabad; in the Central Provinces, from 3½ in Nimar to 4 rupees at Jubbulpore. The price of imported salt in the adjoining province of Behar ranged from 3½ rupees at Patna to $4\frac{1}{8}$ rupees at Chupra. Prices were about the same as in 1895–96. Northern India.

The number of persons prosecuted for breach of the salt law fell from 578 to 547; of this latter number 46 persons were acquitted and 484 were convicted, of whom 323 were imprisoned in default of payment of fine. The number of serious cases of salt smuggling were very few; 959 persons who were arrested for very petty cases of salt smuggling were released by the departmental officers without being sent for trial.

The total quantity of salt paying duty in Bengal during the year was 10,477,000 maunds, or slightly more than in the previous year. The quantity consumed in Bengal, after deducting net exports by land, was 9,695,000 maunds Bengal.

SALT.

against 9,567,000 in 1895–96. The amount of salt imported and manufactured during the year was 8,417,000 maunds, of which there came from—

	Maunds.		Maunds.
The United Kingdom - -	4,482,000	Red Sea and Persian Gulf Ports	1,484,000
Germany - - - -	609,000	Aden - - - - -	1,079,000
Bombay - - - - -	542,000	Orissa Coast Factories - -	46,000
Madras - - - - -	2,000		

There were considerable decreases under all heads, except in the imports from Aden. The stocks in hand at the end of the year were 1,475,000 maunds, as compared with 3,631,000 at the beginning of the previous year, the decrease being due to the great reduction in salt importations. The gross salt revenue was Rx. 2,514,000, or a small fraction above the receipts of the preceding year, against an expenditure of Rx. 38,000. In Orissa the consumption of locally-manufactured salt fell from 75,000 to 46,000 maunds; but the sales of Ganjam salt increased, and the total consumption of Orissa was 9 per cent. larger than in the previous year, though still below that of the year 1893–94. The average price of salt, including duty, at the nine chief marts of Bengal increased by 3 annas 10 pice per maund, or 8 per cent., as compared with the previous year. The increase was mainly due to a rise in the price of Liverpool salt, which ranged during the year from 124 rupees to 72 rupees per 100 maunds, as compared with a range of 82 to 42 rupees during the previous year. It is said that the importations fell short of the demand; and they were 21 per cent. below those of the previous year. The average consumption of salt in Bengal was about $10\frac{1}{4}$ lbs. or about the same as in the previous year.

The number of cases in which contraband salt was confiscated was 1,097, as compared with 504 and 1,098 in the two previous years. There were in all 905 prosecutions for salt offences; and 27 persons out of a total of 926 accused people were acquitted. In the previous year there were 506 prosecutions.

Madras.

It was explained in a previous number of this Statement* that in Madras, where salt is made on the coast by solar evaporation, a limited number of Government salt factories had been re-opened in order to remedy the evils of high prices and small stocks, which had resulted from the handing over of the manufacture of salt to capitalists under an excise system. The intention was to create as soon as possible a reserve of Government salt, but not to disturb the market by selling Government stocks unless the supply should run short or prices be forced up to any salt mart; the Government reserve stocks were eventually to be somewhat more than one-third of a year's consumption.

During the year 1896–97 there were 66 factories at work, or three more than in the previous year; of these 22 were Government, and 44 private, establishments. The season was favourable to salt manufacture. The average price of bonded salt throughout the presidency, which had been $6\frac{1}{12}$ annas per maund under the excise system in 1887–88, was $3\frac{1}{3}$ annas per maund in 1896–97, or slightly dearer than in the previous year. The average retail price of salt in the several districts of the plains ranged during the year from 10·30 seers per rupee in Bellary to 12·54 seers per rupee in Chingleput. The total quantity of salt manufactured during the year was 9,688,000 maunds, besides 1,132,000 maunds of salt imported from Bombay, against 8,892,000 maunds manufactured in the preceding year, and an average of 5,260,000 maunds in the two years 1885–87, when the output of salt was too low. The salt stocks at the end of the year were equal to 25 months' supply, as at the end of the previous year, compared with five months' supply at the end of 1886–87. The reason for the maintenance of such large stocks is that an unfavourable season may in any year reduce the output of existing factories by 50 per cent.

The issues of Madras salt for home and inland consumption were 8,023,000 maunds, or 3 per cent. below the issues of the preceding year; the decrease was due to the drought and scarcity prevalent during part of the year. The consumption of salt by 34,388,000 of the population of South India, including Mysore, Coorg, and certain Native States, but not including certain districts on the northern coast of Madras, came to $15\frac{1}{2}$ lbs. per head, as compared

* *See* the Twenty-fourth Number of this Statement (for 1887–88), p. 76, and the Twenty-fifth Number (for 1888–89), p. 73.

with 16·18 lbs. per head, in 1895–96; the consumption by a population of 18¼ millions in the Tamil districts south of Madras came to 18· lbs. per head, as in the previous year. SALT.

The gross revenue from Madras salt was Rx. 1,682,000, as compared with Rx. 1,977,000 in the preceding year. The large decrease was attributed mainly to the prevailing distress caused by drought and high prices.

During the year 1896–97 there were 130 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured was 42,000 tons, or 6,000 tons less than in the previous year. The cost of the yards to the Treasury was more than covered by the reduced price (6⅔ to 10 annas per maund) realised for salt. Most of the salt fish is consumed within the presidency, the net exports being returned at 2,700 tons, valued at 1⅔ annas (about 1½ pence) per pound.

Prosecutions under the salt laws, though 11 per cent. fewer than in the previous year, were still numerous in comparison with other provinces; 12,129 persons were charged with salt offences, of whom 2,495 were released by departmental officers with a warning, and 9,634 were sent for trial. Of the persons tried during the year by magistrates, more than 99 per cent. were convicted. The average fine imposed on offenders against the salt laws was about 1⅓ rupees per head.

On the Bombay coast salt is made partly by boiling and partly by solar evaporation, at 438 factories, or two more than in the year 1895–96. The amount of salt manufactured was 9,953,000 maunds, or 1,406,000 maunds less than in 1895–96; the stocks at the beginning of the year were unusually large, and the quantity of salt written off as wastage was slightly larger than in the previous year. The total removals of salt for consumption came to 8,768,000 maunds, or 163,000 less than in 1895–96. The reduction of consumption was due in part to the scarcity which prevailed during the latter part of the year, in the North-West Provinces, in the Nizam's dominions, and in the Central Provinces. The issues of salt for local consumption in the Bengal Presidency were 3 per cent. smaller than in the previous year. The amount of duty-paid salt taken for consumption in Bombay districts was 3,223,000 maunds, or 11¼ lbs. per head of the population, as compared with 11½ lbs. in the previous year. In Guzerat, the richest part of the presidency, the rate was 8·2 lbs. per head, and in the rest of the presidency it was 12·73 lbs. The gross salt revenue receipts were Rx. 2,168,000, or Rx. 80,000 below the total of the previous year, and Rx. 168,000 below the receipts of 1894–95. During the year the average price of salt, exclusive of duty, ranged from 1⅓ annas per maund at the Baragra works to 4 annas per maund at the dearest of the sea-salt works, near Bombay; the wholesale price of duty-paid salt ranged from Rs. 2 15/16 per maund in the cheapest district, Ahmedabad, to Rs. 4 1/10 per maund at Bombay, the dearest market. Fifteen fish-curing yards were at work; the quantity of fish brought to be cured in bond was 4,446 tons, and 1,159 tons of cheap salt were issued to fish-curers. Bombay.

The number of persons tried for offences under the salt laws was 1,072, against 733 in the previous year; the number convicted was 1,013 against 688.

In Sind the amount of duty-paid salt passed into consumption was 269,000 maunds, or 4 per cent. more than in the previous year; and the salt revenue was Rx. 75,600, or 3 per cent. above the receipts of 1895–96. The consumption of duty-paid salt came to 7·98 lbs. per head of the population, against 7·73 lbs. in the previous year. The average price of salt rose slightly, and was Rs. 3. 7 As. per maund. Sind.

The number of prosecutions for salt offences fell from 153 to 122; the most important salt seizure was in Karachi, where 1¼ maunds were found with one smuggler.

The amount of salt imported into Burma in 1896–97 was 35,317 tons, against 51,852 and 48,442 tons in the two previous years; and the arrivals of local salt in the Rangoon and in the up-country market are said to be increasing considerably, and the local salt is becoming a serious competitor with the imported article. The decrease in salt imports is attributed to the existence of large salt stocks in Rangoon at the beginning of the year. The total salt consumption of Burma was approximately 1,800,000 maunds during the year, equal to about 17½ lbs. per head for eight million people in Burma and the Shan States. Burma.

EXCISE.

EXCISE. General.

The excise revenue of India is raised partly from the following sources:—(1) Monopolies for the sale of liquors and intoxicating drugs, over defined areas; (2) Still-head duty on all spirits manufactured at distilleries; (3) Licenses for the working of stills at specified places; (4) Licenses for the sale of various kinds of liquor.* Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in India, is not subjected to any duty; tea and coffee, which are grown largely for Indian consumption and for exportation, are also free from all duties. Over almost the whole of Bombay and the Punjab, over the populous parts of Madras, the North-Western Provinces, Oudh, and Burma, and over some parts of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength. The still-head duty ranges as high as five rupees per gallon of London proof spirit; if the cost of licenses be added, the total duties are in some places more than seven rupees per gallon of London proof spirit. The system of excise management followed in these tracts is called the central distillery system. Over a large part of Bengal, and over most of the Central Provinces, over the whole of Assam and Berar, and over limited tracts in other provinces, revenue is levied on Indian spirits by leasing the spirit monopoly to the highest bidder, which is called the farming system; or by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have in past years declared their intention to restrict the farming and out-still systems as narrowly as possible. The difficulties are that in sparsely-peopled forest tracts the materials for illicit distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept in such places; and illicit practices prevail, to the consequent demoralisation of the people, if weak liquor cannot be obtained in some lawful way. Licensed out-stills are sometimes the only means of meeting the requirements of such exceptional tracts.

The following table gives the excise revenue of 1896–97 for each province under the different heads, as shown in the Finance and Revenue Accounts:—

	India, General.	Bengal.	North-West Provinces and Oudh.	Punjab.	Lower Burma.	Upper Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Spirits, Fermented Liquors and Drugs, viz.:—	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Foreign Liquors, &c.	5,936	116,045	42,231	24,183	72,454	25,674	823	2,432	33,919	21,946	350,673
Country Spirits	90,275	606,205	263,139	117,794	64,466	4,636	133,009	55,462	658,880	754,922	2,748,788
Toddy	3,858	101,617	8,136	–	32,160	7,700	2,095	22	699,045	146,380	1,001,013
License Fees for sale of Opium and its preparations.	2,367	59,918	15,013	37,111	121,765	22,120	22,547	33,319	36,243	2,437	352,840
License Fees for sale of other drugs.	3,285	136,606	70,531	21,126	–	–	9,847	17,606	7,162	42,642	308,623
Duty on Opium consumed in India.	1,091	172,600	46,911	16,012	54,923	13,798	32,706	151,652	42,250	105,723	637,666
Acreage on Land cultivated with the Poppy.	–	–	–	2,834	–	–	–	–	–	–	2,834
Fines, Confiscations, Miscellaneous.	635	1,785	183	203	1,248	1,288	1,034	85	7,014	8,302	21,777
Duty on Ganja	–	145,638	–	–	–	–	9,200	17,706	–	405	172,949
TOTAL Revenue	107,447	1,339,931	446,444	219,263	347,017	75,216	211,291	278,284	1,489,657	1,099,650	5,614,200
Charges	3,119	89,642	5,579	5,507	12,622	3,752	5,003	554	70,680	36,397	212,855
Net Revenue, 1896–97	104,328	1,270,289	440,865	213,756	334,395	71,464	206,288	277,730	1,418,977	1,063,253	5,401,345
Net Revenue, 1895–96	106,855	1,270,648	543,469	209,371	306,960	62,166	210,996	277,115	1,368,359	1,128,521	5,515,360

* A customs duty is also levied on all imported spirits, wines and beer. The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer.

The sum of Rx. 659,165 was yielded by import duties on liquors and spirits imported into India during the year 1896-97, and thus the total drink and drugs revenue of India amounts to about 4¼ annas a head on the whole population of British India. There has been a considerable increase in the excise revenue during the past 30 years; but this increase, though in part due to enhanced consumption of liquors caused by the growth of population and the general increase of earnings, is yet largely, and in some localities mainly, the result of improved excise administration, which has doubled or trebled the rates of taxation, and has, at the same time, restricted the use of illicit intoxicants. The totals of the net excise and customs revenues on liquors and drugs consumed in India during the past 24 years compare thus :— EXCISE.

	Rx.		Rx.
1874-75 - - -	2,633,000	1892-93 - - -	5,660,000
1880-81 - - -	3,515,000	1894-95 - - -	5,947,000
1883-84 - - -	4,259,000	1895-96 - - -	6,176,000
1886-87 - - -	4,865,000	1896-97 - - -	6,091,000
1889-90 - - -	5,294,000		

For the 231* millions of people who inhabit the several provinces of British India and Berar, the total number of shops licensed for the retail sale of spirits, fermented liquors, opium and drugs, is as follows, province by province :—

PROVINCE.	Number of Retail Shops licensed in 1896-97 for the Sale of					Quantity of Opium sold for Local Consumption, so far as known.
	Spirits made in India.	Imported Spirits or Liquors.	Toddy and Rice Beer or other Indian Fermented Drinks.	Opium.	Narcotic or Intoxicating Drugs, other than Opium.	
						Maunds (82 *lbs. each.*)
Bengal - - - - -	3,288	484	14,964	1,680	3,064	2,110
North-West Provinces and Oudh.	6,276	273	4,464	1,103	3,637	1,532
Punjab - - - - -	1,269	473	37	1,540	1,340	1,471
Burma - - - - -	53	430	1,102	49	None.	703
Central Provinces - - -	6,366	64	677	920	998	493
Assam - - - - -	218	77	14	804	276	1,331
Madras - - - - -	10,636	754	18,415	1,129	270	964
Bombay - - - - -	2,805	441	1,810	1,141	1,139	1,555
Berar - - - - -	1,105	18	971	471	138	337
TOTAL - 1896-97	32,016	3,014	42,454	8,837	10,862	10,496
TOTAL - 1895-96	32,529	3,145	43,087	9,388	11,314	11,053

There are thus, 197,183 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of 2,377 of the population. In the United Kingdom, a few years ago, there were 163,119 licenses for the sale of beer, wine and spirits, or one shop to 237 of the population. In neither computation are occasional or part-year licenses reckoned; of these latter licenses 31,888 were issued in the United Kingdom during a single year, while the temporary or part-year licenses in India are under 2,000 a year.

* This figure is an estimate based on the results of the Census of 1891, which showed a population in British India of 221,172,952.

Excise. Bengal.

In Bengal the total excise revenues of 1896-97 and the two previous years were as follows:—

Receipts from	1894-95.	1895-96.	1896-97.
	Rx.	Rx.	Rx.
Country spirits	555,445	591,184	608,046
Foreign liquors and rum	71,435	75,478	71,320
Fermented local liquors, toddy and rice-beer	137,945	145,933	145,447
Opium	233,180	247,282	232,560
Ganja, bhang, and their compounds	256,404	276,002	281,817
Miscellaneous	1,497	1,901	1,868
TOTAL EXCISE REVENUE	1,255,906	1,337,780	1,341,058
Add duties on imported liquors	179,100	186,668	191,990
TOTAL REVENUE FROM DRINKS AND DRUGS Rx.	1,435,006	1,524,448	1,533,048

The policy of substituting the central distillery system for the out-still system of raising revenue from country spirits was not carried further in Bengal during the year. Out-stills had been abolished in 1890 over all districts of the Burdwan, Presidency, Dacca, and Orissa divisions, containing a population of 30 millions. The number of central distilleries was 30, as in the previous year. The maximum number of licensed out-stills in the whole province was 2,097, as compared with 2,091 in the previous year, and 5,250 out-stills in the year 1881–82. The total number of retail licenses for the sale of country spirits, rum and imported liquors, during the past three years, has been:—

	1894-95.	1895-96.	1896-97.
Number of licenses granted for the retail sale of—			
Country spirits from out-stills	2,087	2,091	2,097
Country spirits from central distilleries	1,217	1,197	1,191
Rum, imported wines, spirits and other liquors	589	586	484
	3,893	3,874	3,772

Much of the out-still liquor is of very low alcoholic strength. The quantity of spirit issued from the out-stills was reported to be equal to 1,390,000 gallons of London-proof liquor, as compared with 1,421,000 gallons in the previous year. The out-turn from central distilleries in the year was 478,000 gallons London-proof spirit, against 490,000 gallons in the previous year. The still-head duty levied on central distillery liquor ranged from two to five rupees per gallon of proof spirit.

The revenue from toddy was Rx. 101,048, as compared with Rx. 102,403 in the previous year; the number of licensed shops for fermented toddy was 13,301, against 13,317 in 1895–96. In 1896–97 as many as 1,986 shops were licensed for the sale of unfermented toddy or palm-tree juice. Attempts have been made to raise *tari* revenue in selected districts by imposing a tree-tax on the Madras system; in some districts the attempt has been abandoned, as being unsuited to local circumstances; in others the experiment is being continued with some prospect of success. The number

of shops licensed to retail pach-wai, or rice-beer, was 1,663. The number of licensed ganja shops was 2,688, as compared with 2,696 in the preceding year, and the amount of licit ganja consumed was 5,098 maunds, against 5,202 in the preceding year; the rate of duty has been twice enhanced during the previous five years, but remained the same through the year 1896–97. The number of shops licensed for the retail sale of bhang and charas (other hemp drugs) was 322 and 54, as compared with 315 and 57 in the previous year. The number of shops licensed for the retail sale of opium was 1,680, or 18 less than in the preceding year; the amount of licit opium consumed fell from 2,160 to 2,110 maunds. No shops are licensed for selling opium prepared for smoking after the Chinese fashion, known as *chandu*, or for selling opium prepared for smoking after the Bengali manner, known as *madak*. Excise.

The number of arrests for offences against the excise and opium laws fell from 4,412 to 4,148, and convictions were obtained against 3,657, or 88 per cent., of the accused persons; of these, 437 persons were convicted of the offence of illicit distillation.

The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1896. For the last three years the excise revenues have been :— North-Western Provinces and Oudh.

Receipts from	1893-94.	1894-95.	1895-96.
	Rx.	Rx.	Rx.
Country spirits	386,101	359,820	326,381
Foreign liquors and rum	36,277	38,901	42,154
Opium	79,365	76,506	67,822
Other drugs	74,543	79,747	78,729
Toddy and miscellaneous	9,131	8,692	9,216
TOTAL Rx.	585,417	563,666	524,302

There was a decrease of Rx. 39,000, or 7 per cent., below the revenue of the preceding year, which year had shown a decrease of Rx. 22,000, or 3¾ per cent.; the fall in revenue was attributed to the unfavourable harvests, which had caused high prices and hard times for the people.

The revenue from country spirits was raised as follows :—

(*a*) Rx. 310,981 under the central distillery system, which extends over 68,500 square miles, inhabited by 38¼ millions of people.

(*b*) Rx. 30,894 under the out-still system, which extends over 16,000 square miles, inhabited by 6 millions of people.

(*c*) Rx. 18,456 under the farming system, which extends over 22,200 square miles, inhabited by 2½ millions of people.

The rate of still-head duty charged at the distilleries was Rs. 2 per gallon of London-proof spirits, and Rs. 1½ per gallon for spirit 25° below proof. The total amount of spirit passed out of the central distilleries was 1,194,000 gallons, against 1,349,000 gallons in the previous year, and against 2,056,000 gallons in the year 1885–86. The total consumption of distillery liquor during the year represented 913,000 gallons of London proof spirit, as compared with 1,159,000 gallons in 1893–94. The number of distilleries was 35, as in the previous year. The number of licensed retail shops for country spirits in the two provinces fell from 4,894 to 4,881 in the central distillery tracts; and rose from 1,372 to 1,395 in the tracts where the out-still and farming systems prevailed; the retail licenses for rum and foreign spirits fell from 284 to 273; and the consumption of rum from the Rosa factory rose from 30,509 to 30,741 gallons.

EXCISE.

The number of shops licensed for the sale of opium and its compounds was 1,013, as compared with 1,092 in the previous year. No shops were licensed for the sale of chandu and madak, or opium prepared for smoking. The quantity of licit opium passed into consumption was 1,532 maunds, against 1,592 maunds in the previous year. In some districts the selling price of opium was raised. The number of shops licensed for the sale of other narcotic drugs was 3,637, as compared with 3,654 in the previous year. The number of licensed toddy shops decreased from 4,541 to 4,464. The Madras system of taxing toddy trees was tried in two districts; but it does not work well in a province where the toddy revenue is comparatively small.

The number of prosecutions under the Excise Act was 670, or 23 per cent. less than, and under the Opium Laws 522, or 8 per cent. less than, in the previous year; the prosecutions for illicit distillation were only 61, against 186 and 305 in the two preceding years. The proportion of convictions to prosecutions was about the same as in the previous year.

PUNJAB.

The excise revenues of the Punjab in the last three years were raised as follows:—

Receipts from	1894-95.	1895-96.	1896-97.
	Rx.	Rx.	Rx.
Country spirits	110,799	117,835	117,021
Imported liquors and rum	36,672	42,206	41,906
Opium	51,897	52,664	56,026
Other drugs and miscellaneous	19,241	18,933	21,962
TOTAL Rx.	218,609	231,638	236,921

The increase of 2 per cent. in the revenue was due entirely to the levy of two new duties, one on opium imported from the Hill States into the Punjab, and the other a duty on *charas*, a variety of hemp drug, imported into the Punjab from the Upper Himalayas.

The central distillery system is in force throughout the whole province, save in small parts of the Gurgaon, Firozpur, and Kangra districts, and there were during the year 19 central distilleries, as compared with 24 in the previous year. The rates of still-head duty were three rupees per gallon of spirit less than 25 degrees below proof, 2½ rupees for spirit from 50 degrees to 25 degrees below proof, and two rupees for spirit more than 50 degrees below proof. Country spirits in the Punjab are distilled from molasses. The total consumption of licit spirits and the number of licensed shops for the past three years are returned thus:—

	1894-95.	1895-96.	1896-97.
Consumption of country spirits computed at London proof, in gallons.	227,880	238,749	228,329
Ditto rum, London proof, in gallons	51,463	53,313	45,437
Ditto other imported spirits, in gallons	61,509	79,350	78,082
Licensed retail shops for country spirits	1,296	1,293	1,269
Licensed retail shops for rum and imported liquors, including hotels, refreshment rooms, and travellers' rest-houses.	473	473	473

The opium revenue comprised Rx. 2,828 from an acreage fee on lands growing the poppy, and Rx. 37,121 from licenses for the vend of opium, besides Rx. 14,293, the duty on imported opium. The area licensed for poppy cultivation had risen from 9,933 acres in the year 1894-95 to 12,741 acres in the year 1895-96, and fell again to 9,757 acres on account of the unfavourable character of the season. The number of shops licensed for retail sale of opium was 1,540, as compared with 1,564 in the previous year; the quantity of licit opium returned as consumed was 1,471 maunds, as compared with 1,608 maunds in 1895-96. No licenses are granted for shops where opium preparations could be consumed on the premises. The number of shops licensed to retail hemp and other drugs was 1,340, as against 1,390 in the previous year. EXCISE. Punjab.

The number of persons prosecuted under the liquor and drug laws rose from 362 to 446, of whom 226 persons were convicted for serious offences, such as illegally distilling or smuggling liquor, and 59 for petty offences; and the number prosecuted under the opium laws rose from 200 to 290.

In Burma the excise revenue during the past three years was raised thus:— Burma.

Receipts from	1894-95.	1895-96.	1896-97.
Lower Burma:	Rx.	Rx.	Rx.
Distillery and imported liquors	73,367	72,966	98,072
Out-stills	7,977	7,492	12,489
Toddy	29,277	30,745	40,516
Rice beer	51,177	53,581	52,757
Opium (after deducting prime cost of Government opium).	148,279	153,196	217,931
TOTAL - - - Rx.	310,077	317,980	421,765
Add duty on imported liquors	88,188	102,549	107,767
Upper Burma excise receipts	68,818	69,664	* *See* note below.
TOTAL REVENUE FROM DRINK AND DRUGS - - Rx.	467,083	490,193	529,532

The increase of three lakhs accrued mainly under the head of Opium. Six central distilleries were working during the year in Burma. The importations of foreign spirits decreased from 178,537 in 1895-96 to 175,714 gallons in 1896-97. The number of out-stills was 53, as compared with 50 in 1895-96. The central distilleries produced 50,719 gallons of spirits, against 47,162 gallons in the previous year.

The number of retail shops licensed under the excise and opium laws in the two sections of the province during the last two years was:—

	1895-96.	1896-97.
Out-still shops	50	53
Distillery spirit and foreign liquor shops	421	430
Toddy shops	848	863
Rice beer and other fermented liquor shops	230	239
Opium shops	39	49
Licit opium consumed (in maunds)	*479	703

* *Note.*—Upper Burma and Lower Burma receipts are for the first time shown together in 1896-97. The opium consumption shown for 1895-96 is for Lower Burma only; that for 1896-97 is for the whole of Burma.

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The price of Bengal opium and the duty on foreign opium brought by land were raised by one rupee per seer from the beginning of the year. Three additional opium shops were licensed in Lower and seven in Upper Burma. There was a considerable increase in the consumption of and in the revenue from opium in Burma. From the 1st January 1894 opium could not be legally sold to or possessed by Burmans, unless they had registered themselves as consumers before the end of June 1894. Non-Burman residents are allowed to buy and possess opium under the same restrictions as before. A maximum supply of opium is fixed for each licensed shop, calculated according to the number of legitimate consumers that are likely to frequent such shop. There were 53 licensed opium shops in Burma, and opium was sold to legitimate consumers from the Government treasury at five places where the number of such persons is not large enough to warrant the licensing of a shop. The total issues of opium permissible for the whole province were 865 maunds, against which 703 maunds of licit opium were consumed. In Lower Burma the retail price of opium, which had doubled under these regulations, advanced somewhat higher during the year; and the total revenue per seer of licit opium consumed was 86 rupees. Regarding the apparent effect of the prohibition of opium among Burmans, the Local Government say :—

"The figures of sales of opium at Government sale centres given in paragraph 85 of the provincial excise report are significant. If there were grounds for believing that the diminished sales of opium from the sale centres at Kyaukpyu and Sandoway were due to a decrease in the opium habit in these two districts, the diminished receipts would be far from being a matter of regret. Unfortunately the proportion of opium consumers among the jail population has not decreased in Kyaukpyu during the last three years, while in Sandoway it has risen from 50·7 to 72·5 per cent. This circumstance, and also the experience of local officers indicate that the consumption of opium has certainly not diminished and is probably increasing. The Lieutenant-Governor has therefore no doubt that the opinion formed by the Financial Commissioner is correct, and that the decrease in the sales is due to the fact that a large proportion of consumers are obtaining their supplies from illicit sources. The depôts were originally established with a view to checking as far as possible the consumption of opium among the population of the two districts, while providing for the requirements of such as were already habitual consumers of the drug. It is clear, however, that the experiment has failed, and that Government is losing revenue without corresponding advantage. Proposals for converting these sale centres into licensed shops are now under consideration.

"The facts and statistics presented in the report render it difficult to believe that there has been any decrease in the illicit opium trade. As has been pointed out in previous reports, the geographical position of Burma, with its wide extent of land frontier and its long line of sea coast intersected by innumerable small creeks, offers peculiar facilities for smuggling. The extent of the traffic in Akyab is described by the Deputy Commissioner in the present report, while the amount of smuggling which exists in Kyaukpyu and Sandoway has already been referred to. In the north of the province no less than 47,413 tolas of illicit opium were seized during the year in Myitkyina, 15,744 tolas were seized in Bhamo, and 16,570 tolas in the Ruby Mines district, figures which prove the extent to which Chinese opium is illicitly imported. On the east the increase in the amount of opium seized in the Meiktila and Yamèthin districts indicates a development in the trade of smuggling opium from the Shan States, while the seizure of 7,575 tolas of opium in a single case in Pegu shows that smuggling on a large scale is not confined to frontier districts. The increase in the amount of opium seized no doubt affords satisfactory evidence of the greater activity of the police and excise establishments, but the figures confirm the Lieutenant-Governor in the view that illicit traffic in the drug is prevalent in all parts of the province and has not as yet shown any tendency to diminish. There can be no doubt that the large profits obtainable from smuggling, the ease with which the drug can be concealed, and the apathy of the respectable classes, all combine to render the task of detection peculiarly difficult. The Lieutenant-Governor can only urge local officers to increased vigilance and impress on them the necessity for sharp sentences and large rewards in cases in which the offence is proved.

"The number of offences against the opium and excise laws detected by the police and the special preventive staff remained almost unchanged. There was a slight increase in the number of liquor cases and a corresponding decrease in the number of opium cases. Four hundred and sixty-five illicit stills were detected, against 338 in the preceding year, but the amount of liquor seized was only 12,215 gallons, as compared with 24,300 gallons seized in 1895–96. Less *ganja* was seized than in the preceding year, but there was a large increase in the amount of smuggled opium confiscated, the total quantity having risen from 67,642 tolas to 154,670 tolas (or 1,691 lbs. to 3,867 lbs.)". Excise.

In the Central Provinces the excise receipts of the past three years have been as follows:— Central Provinces.

Receipts from	1894–95.	1895–96.	1896–97.
	Rx.	Rx.	Rx.
Country spirits	173,474	148,794	132,232
Opium	97,947	91,923	76,592
Ganja	27,082	24,501	18,972
Toddy	2,240	2,061	2,095
Miscellaneous	2,905	3,440	2,743
TOTAL Rx.	303,648	270,719	232,734

The large decrease of revenue, for a second consecutive year, was due to the depressed condition of the people caused by famine and scarcity over most districts.

The greater part of the country is supplied with spirits from out-stills, of which there were licensed 1,706 at the close of the year; besides 15 central distilleries and three contract stills. The chief change of the year was the re-introduction of the old central distillery and out-still system into three districts, where another system had been tried, whereby the number of out-stills in the province rose from 1,387 to 1,706. At contract stills a fixed daily fee is levied on each still actually in use, and care is taken that no still is used on any day for which the prescribed fee has not been paid. At out-stills the restrictions on manufacture of spirit are the limitation of the number of shops to be supplied, and the limitation of the number and size of the vessels used for distillation. The duty ranges from 12 annas on liquor 45 degrees below proof to 3 rupees a gallon on proof spirit.

The number of permanent shops for the retail of country spirits rose from 6,286 to 6,366. The number of temporary shops licensed for different periods was 209, as compared with 223 in the preceding year. No trustworthy information exists regarding the quantity or strength of the liquor made at out-stills, so no estimate of the total liquor consumption can be offered; at most of the shops in the interior the liquor is usually of very low alcoholic strength. The material from which liquor is distilled is everywhere the flower of the mhowa tree. The number of licenses for the retail of imported liquors was 64, against 61 in the previous year. The number of licensed tari shops was 677, or nine less than in 1895–96. The quantity of Shahjahanpore rum imported into the province rose from 5,638 gallons to 6,709 gallons.

The number of shops licensed for the sale of opium was changed during the year from 901 permanent and 392 temporary shops, or 1,293 in all, to 920 permanent and 270 temporary shops, or 1,190 in all; and the quantity of Government opium sold to the licensed vendors fell from 582 to 493 maunds. No licenses were given for the sale of madak, or opium prepared for smoking, The amount of opium supplied on payment to feudatory chiefs and zemindars was 140 maunds, as compared with 170 and 161 maunds in the two previous years. The number of permanent shops licensed for the retail sale of ganja and its compounds was 998, or one more than in the preceding year; while the number of temporary shops fell from 375 to 245. The quantity of ganja passing

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into consumption fell from 989 to 830 maunds; while the quantity sold to feudatory chiefs decreased from 227 to 158 maunds.

The number of prosecutions under the excise laws fell from 532 to 449, and from 260 to 222 under the opium laws. Out of 222 cases under the Opium Act, 129 were for the possession of smuggled opium. Out of 449 prosecutions under the Excise Act, 53 were for the illicit manufacture of liquor and 219 for illegal possession of liquor. Out of 810 persons prosecuted, 688, or 83 per cent., were convicted.

Assam.

The excise demand of Assam for the year 1896-97 and previous years was distributed thus:—

Receipts from	1894-95.	1895-96.	1896-97.
	Rx.	Rx.	Rx.
Country spirits	45,276	47,646	55,178
Imported liquors and rum	2,590	2,088	2,604
Opium and its compounds	193,534	190,101	186,101
Ganja and its compounds	30,195	32,281	35,285
Miscellaneous, including toddy, &c.	171	203	225
TOTAL Rx.	271,766	272,319	279,393

The whole revenue of the year was collected, except Rx. 25, which were remitted, and Rx. 40, which were outstanding at the end of the year. The revenue from country spirits is raised entirely under the out-still system; the sites of shops are fixed; the right to have one still, and to sell spirits at each shop, is sold annually by auction. The number of licensed retail shops for country spirits was 218, against 219 in the previous year, besides seven temporary shops in each year. Much of the liquor is weak; it sells from six annas to one rupee per quart bottle, according to strength. Out of 30 samples tested at different shops in each of the plains districts, 17 were found to be weaker than 50 per cent. below London proof, nine samples were from 25 per cent. to 50 per cent. below proof, and four samples were stronger than 25 per cent. below proof. The number of retail shops licensed to sell rum was 13, against 12 in the previous year, and 24 in 1894-95; this rum is sold at from 8 annas to 1½ rupees per quart bottle. No rum was distilled in Assam during the year, and 2,254 gallons were imported, as compared with 1,444 in the previous year. The number of shops licensed for the retail sale of foreign liquors, including licenses on board steamers, was 64, as compared with 82 in the previous year. For toddy five licenses, and for rice beer nine licenses, were issued. The number of licensed ganja shops was 276, or 14 more than in the previous year; and the quantity of ganja disposed of during the year was 634 maunds, against 613 in the year 1895-96. Ganja is consumed chiefly in the two districts of the Surma Valley. The opium revenue again shows a decrease as compared with the previous year; but opium still yields about two-thirds of the total excise revenue of Assam. While revenue from opium has decreased, the revenue from liquor has increased. The issue price of opium in Assam is 37 rupees per seer, as compared with 8½ rupees, the cost of production at the Government factory. The number of licensed opium shops has been gradually reduced from 1,283 in the year 1883-84 to 827 in the year 1895-96, and to 804 in the year 1896-97; while the quantity of licit opium consumed was 1,331 maunds, against 1,373 maunds in the preceding year, 1,494 in the year 1889-90, and 1,874 maunds in the year 1875-76. No shops were licensed for the sale of madak and chandu, preparations of opium for smoking, during the year.

The number of prosecutions under the excise and opium laws fell from 434 to 335, and convictions were obtained against 78 per cent. of the accused persons. Three cases of unlawful cultivation of the poppy were reported; 13 cases of unlawful cultivation of ganja and bhang came to light; and 26 cases of illicit

manufacture and sale of spirits were prosecuted. Most of the other cases were of trifling character; no case of smuggling opium from beyond the frontier was reported during the year. Excise.

The excise revenue of Madras during the last three years was raised thus:— Madras.

Receipts from	1894-95.	1895-96.	1896-97.
	Rx.	Rx.	Rx.
Country spirits	597,650	623,747	654,017
Toddy alone	650,391	682,823	702,462
Foreign liquors and miscellaneous	43,851	43,984	49,672
Opium and other drugs	71,115	82,080	82,789
TOTAL - - - Rx.	1,363,007	1,432,634	1,487,940
Add,—Customs duties on imported liquors	108,681	111,481	109,997
TOTAL REVENUE FROM DRINK AND DRUGS - - Rx.	1,471,688	1,544,115	1,597,937

The total excise revenue showed an increase of Rx. 55,000, or nearly 4 per cent. over the previous year; last year the increase was 5 per cent.

Duties on country spirits are raised under the central distillery system over the whole presidency, except in Malabar, Ganjam, Godavery, Vizagapatam, and parts of two other districts. In these exceptional tracts, which contain a population of five millions, or one-seventh of the presidency, the monopoly of manufacture and vend is farmed out, but the farmer has to pay stipulated rates of duty on all spirit that he distils or sells. Shop licenses are sold by auction in all the towns, and in most of the rural circles. Over the greater part of the presidency a tree tax, ranging from one rupee to six rupees a year, is imposed on all palm trees tapped for toddy, while the shops for retail sale of toddy pay a license fee, or outside the tree-tax area are sold by auction to the highest bidder. The rates of still-head duty were raised in parts of the Ganjam and Kistna districts during the year; they now range from 5⅝ rupees a gallon to 1½ rupees per gallon on proof spirit; while the total taxation, including license fees, exceeds six rupees per gallon of proof spirit in 16 districts or tracts, ranges from five to six rupees in nine districts or tracts, is between four and five rupees in four areas, and is under two rupees in parts of two districts. Much of the spirit consumed in the Madras Presidency is made from sugar at large distilleries worked with modern appliances. The number of licensed shops for the retail sale of country spirits had been reduced from 17,736 in 1888–89 to 11,261 during the year 1895–96, and fell to 10,636 in 1896–97; the licenses for the retail sale of foreign liquors were 754, as compared with 755 in the preceding year. The quantity of foreign spirit imported into Madras was 202,842 gallons, or 2,474 gallons less than in the previous year. The total quantity of licit spirits issued from the distilleries, reduced to London proof strength, was 976,400 gallons in 1896–97 against 976,900 gallons in the preceding year.

The rate of tree-tax on toddy trees was enhanced in nine districts and parts of two other districts during the year. The number of licensed toddy shops was 18,415, against 18,963 in 1895-96, and 26,180 in the year 1888–89. The number of licensed shops for opium decreased from 1,145 in the previous year to 1,129, besides 270 shops licensed for the sale of hemp drugs. The total quantity of opium consumed fell from 1,037 maunds in the year 1895-96 to 964 maunds in 1896–97. The consumption of ganja and bhang was 2,018 maunds against 2,115 maunds in the previous year.

The total excise revenue of Madras fell on the population at the rate of about 6⅔ annas per head, as compared with 6½ annas in the previous year. The number of persons prosecuted for offences against the excise laws was 22,673, against 23,207 in the previous year, and 97 per cent. of those tried were convicted. The number of reported cases of illicit distillation was 1,111, cases of sale or possession of illicit spirits were 554, besides 1,501 cases of smuggling spirits from foreign territory; while the reported cases of illicit manufacture of toddy decreased from 11,958 to 11,830.

EXCISE. Bombay.

In the Bombay Presidency the central distillery system obtains nearly everywhere, and the area over which the out-still and farming systems prevail consists of two comparatively uncivilised tracts in the Panch Mehals. In several of the minor Native States the British system of excise management has been adopted; in some others, the chiefs have engaged to manage their excise affairs so as to avoid competition with British excise arrangements. The main peculiarities of the Bombay system are, that spirit must be sold of specified maximum or minimum alcoholic strength; and that in most districts a tax is imposed on every toddy tree that is tapped for its juice. In the Bombay Presidency spirits are distilled from fermented mhowra (or mhowa) flower and from fermented toddy, or juice drawn from incisions in the trunk of three or four species of palms. The general fiscal results of the excise management of the last three years were:—

Receipts from	1894-95.	1895-96.	1896-97.
	Rx.	Rx.	Rx.
Locally-made liquors, including toddy	918,915	973,760	971,775
Licenses on foreign liquors	16,264	16,784	22,121
Opium	100,007	150,786	150,506
Intoxicating drugs	34,025	38,646	38,650
Miscellaneous items	13,961	10,860	11,053
TOTAL EXCISE REVENUE Rx.	1,083,172	1,188,836	1,194,105
Import duties on liquors for Bombay and Sind	234,160	258,871	249,382
TOTAL REVENUE FROM DRINK AND DRUGS Rx.	1,317,332	1,447,707	1,443,487

The rate of still-head duty ranges from five rupees to one rupee per gallon of London proof spirit; and the average over the greater part of the presidency is about three rupees per gallon.

The number of licensed shops in Bombay and Sind during the past three year is returned at,—

	1894-95.	1895-96.	1896-97.
For—			
Country spirit	2,845	2,807	2,805
Toddy	1,746	1,810	1,810
Drugs other than opium	1,236	1,243	1,139
Opium	1,161	1,149	1,141
Imported liquor	483	451	441

In four districts and in parts of a fifth district the rates of still-head duty were raised during the year. The decrease in the revenue from country spirits was attributed to the ravages of plague and famine. The total consumption of excised country spirits in all parts of Bombay, except Sind, during the past two years is returned as equivalent to 2,722,000 gallons of spirit 25° below London proof for 1895-96, and to 2,368,000 gallons of spirit of the same strength for 1896-97. The number of licensed opium shops was 1,141, as compared with 1,146 in the previous year. The consumption of licit opium in the districts of the Bombay Presidency was 1,555 maunds, as compared with 1,692 lbs. in the year 1895-96. The quantity of licit opium sold in Native States of the Bombay Presidency was returned at 1,763 maunds, of which 618 maunds were sold in Baroda, and 634 maunds in Kathiawar. The total excise revenues fell on the population of Bombay province at the rate of 8⅔ annas per head, and in Sind at the rate of 6 annas per head.

In Berar the excise revenue demand of the last three years has been as follows:— Excise. Berar.

	1894–95.	1895–96.	1896–97.
	Rx.	Rx.	Rx.
Country spirit	111,932	102,485	95,407
Opium and drugs	27,010	25,347	24,756
Toddy and miscellaneous	4,332	2,992	3,818
Foreign liquors	192	165	182
TOTAL	143,336	130,989	124,163

Over the greater part of Berar the revenue on country spirits was still raised by selling annually at auction the monopoly of the spirit trade in the circles into which the province was divided; but in the Ellichpur district and part of the Amraoti district the central distillery system was last year in force, with a duty of 1½ rupees per gallon of liquor 25° below London proof. The central distillery system was, during the year 1896–97, extended to the whole of the Akola and part of the Buldana district. The number of shops licensed for the retail sale of country spirits was 1,105, or 13 less than in the previous year; and for imported liquors, 18 against 17. The number of licensed toddy shops was 971, one less than in the two preceding years. The number of licensed opium shops was 471, or three less than in the previous year; and the quantity of opium consumed fell to 337 maunds, against 379 and 404 in the two previous years, and 545 maunds in the year 1889–90. The number of licensed ganja shops was 138, or 69 fewer than in 1895–96. Under the excise and opium laws, 149 convictions were obtained, as compared with 100 in the previous year.

STAMPS.

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts, and under Act I. of 1879 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the stamps receipts, province by province, for the year 1896–97:— Stamps.

	Bengal.	North Western Provinces and Oudh.	Punjab.	Lower Burma.	Upper Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Sale of court fee stamps	1,242,062	523,670	293,372	83,119	23,340	120,238	64,076	35,663	519,015	311,450	3,216,005
Sale of commercial and other stamps.	510,276	183,780	160,500	44,845	11,167	51,382	25,563	21,856	265,028	202,473	1,476,870
Fines and miscellaneous	5,091	1,999	5,557	1,644	867	1,067	380	280	10,043	57,938	84,867
TOTAL Stamp Revenue of 1896–97	1,757,429	709,449	459,429	129,608	35,375	172,687	90,019	57,799	794,086	571,861	4,777,742
TOTAL of 1895–96	1,677,163	730,009	426,038	135,969	34,458	171,931	88,484	54,516	796,734	611,752	4,727,055

The refunds of the year were Rx. 56,653, and the charges of collection came to Rx. 164,781. There was an increase in revenue of 1 per cent., as compared with an increase of 2 per cent. in each of the two previous years, for the whole

STAMPS.

of India. Court fees still yield more than two-thirds of the whole stamp revenue, and general stamps yield something under one-third. In purely agricultural tracts like Berar the court fees revenue is more than double the general stamps revenue; in commercial centres like Bombay, Calcutta, and Rangoon the proportion of revenue yielded by general stamps is much larger. The increase in the year 1896-97 accrued under court fees alone. The revenue from commercial stamps advanced considerably in Bengal and the Punjab; the stamp revenue, for the second consecutive year, increased largely in the Punjab; for the rest, the stamp revenue was stationary or decreased in most provinces.

CUSTOMS.

CUSTOMS.

In a previous year's Statement it was said that "in consequence of the great fall in the gold value of silver, and the resulting increase in the loss by exchange on remittances to meet Indian expenditure in England, it was found necessary to re-impose, in March 1894, import duties, which had been abolished in 1882." The general duties were levied from the 10th of March 1894, at the rate of 5 per cent. *ad valorem*, with the exception of the petroleum duty, which was raised to one anna per gallon. At first cotton goods were exempted, but in December 1894 a 5 per cent. duty was imposed on imported cotton goods and yarns; while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India.

The appended table shows the customs revenue for three years, namely, 1894-95, during which the new tariff was in force with the addition of the 5 per cent. duty on cotton goods from the 27th of December 1894; 1895-96, during which the tariff remained as at the end of the previous year, until the reduction of the cotton duties in February 1896; and 1896-97, during the whole of which the tariff remained unchanged, the duty on woven cotton goods being 3½ per cent., and cotton yarns being on the free list.

Customs Receipts after deduction of Refunds and Drawbacks.

	1894-95.	1895-96.	1896-97.
	Rx.	Rx.	Rx.
Sea Customs:			
Export duty on rice	891,026	914,371	737,270
Import duty on arms, &c.	15,189	17,105	19,699
„ „ Liquors	609,533	661,004	656,811
„ „ Petroleum and other oils	319,677	406,172	503,925
„ „ Other articles	1,879,073	2,795,561	2,289,245
Miscellaneous	10,041	2,656	10,976
TOTAL Sea Customs - Rx.	3,724,539	4,796,869	4,217,926
Land Customs:			
Imports	11,629	11,774	10,325
Exports	12,161	8,238	14,713
Miscellaneous	36	83	111
TOTAL Land Customs - Rx.	23,826	20,095	25,149
Excise duty on cotton manufactures	10,838	60,948	109,159
Miscellaneous (including warehouse and wharf rents)	16,160	28,009	19,940
TOTAL Customs Revenue - Rx.	3,775,363	4,905,921	4,372,174

The decrease of Rx. 533,000 in 1896-97 was partly due to the reduction in import duties on cotton goods and partly to the shrinkage in trade caused by the famine and plague. CUSTOMS.

The total import duty "on other articles," in each of the two last years is made up of the following items :—

	1895-96.	1896-97.
	Rx.	Rx.
Duty on articles of food and drink (not being alcoholic liquors) - -	284,553	272,611
„ chemicals, &c. - - -	101,074	90,352
„ cotton manufactures - - -	1,164,724	898,182
„ silver bullion and coin -	347,788	196,830
„ other metals and manufactures of metals - - - - - -	252,961	426,235
„ other raw materials and manufactured and unmanufactured articles	644,461	405,035
TOTAL - - - - Rx.	2,795,561	2,289,245
The total yield of the cotton duties was :		
Customs duties - - - -	1,164,724	898,182
Excise - - - - - - -	60,948	109,159
TOTAL - - - Rx.	1,225,672	1,007,341

Regarding the working of the excise duties on cotton goods complete report is available for the Bombay Presidency, where 52 cotton factories produced excisable woven goods, while 49 factories produced yarn only. The total output of the cotton mills in the British districts of Bombay for 1896-97 was 302 million lbs. of yarn and 67 million lbs. of woven goods. The net excise revenue realised on cotton goods in Bombay was Rx. 89,000, as compared with Rx. 56,000 in the previous year, chiefly under the old Act, which taxed fine yarns only. Production of cotton goods was largely reduced by the plague. Drawback was paid, without friction, on 8¼ million lbs. of exported woven goods. The valuation of such goods was 6½ annas per lb. all round, which was accepted by the trade as satisfactory. Inspections were made of mills from time to time to secure correct return of goods; mill owners gave every facility to inspecting officers; and the excise duty was collected without difficulty. The only mills in Native States, that might compete with mills in British territory, are situated in Bhaunagar and Baroda. The State of Bhaunagar has adopted and is enforcing the 3½ duty on woven goods. Baroda has not yet done this; and Baroda goods might in time do damage to the trade in British territory.

PROVINCIAL RATES.

PROVINCIAL RATES.

Provincial rates are levied for the most part on the land. They are imposed to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. In the temporarily settled provinces the rates take the form of a percentage on the land revenue, and the revenue payers and tenants have to pay that percentage in addition to the land revenue. In Bengal the cesses are levied by a rate upon the rental, and are payable partly by landlord and partly by tenant. The net receipts under this head were Rx. 3,527,000 in the year 1896-97, as against Rx. 3,696,000 in the preceding year. In Bengal about half of the rates belongs to the Provincial Government; in the North-Western Provinces nearly one-quarter is similarly credited; in other provinces the whole, or almost the whole, of the income from provincial rates is spent on local objects by local bodies. The provincial rates increase with the land revenue, and in Bengal the road cess may be increased by votes of the district boards within the legal maximum, or by alteration in the periodical valuations of the rental. The provincial rates are, for the most part, collected punctually with the land revenue and by the same agency.

The following is a table of the rates and cesses collected during the year:—

	India General.	Bengal.	Assam.	North-Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma (Lower).	Madras.	Bombay.	TOTAL.
REVENUE.										
District Local Fund:—	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Cess on Land for expenditure on Roads, Schools, Hospitals, and general purposes.	2,124	428,751	63,980	454,589	211,894	35,448	114,843	512,609	261,842	2,086,080
Provincial:										
Cess on Land for expenditure on Roads, Schools, &c.	—	430,711	—	—	—	220	—	—	—	430,931
Cess on Land for Famine Assurance, Canals, and Railways.	—	—	—	157,999	55,467	12,863	—	—	—	226,329
Cess on Land for District Post	—	37,852	—	—	10,539	4,123	—	—	—	52,514
Cess on Land for Village Service and Patwaries.	3,346	—	—	218,934	128,908	49,611	—	229,104	37,584	667,487
Assessment on Wards' Estates for Establishment Charges.	—	15,020	—	—	1,808	2,771	—	—	—	19,599
Miscellaneous	4,901	—	—	43,186	505	—	—	5,323	—	53,915
TOTAL Receipts	10,370	912,334	63,980	874,708	409,121	105,036	114,843	747,036	299,426	3,536,855
Refunds	1	2,203	27	227	531	83	181	5,773	770	9,603
Net Receipts, 1896-97	10,370	910,131	63,953	874,481	408,783	104,953	114,662	741,263	298,656	3,527,252
Net Receipts, 1895-96	10,662	872,017	64,437	963,909	425,262	114,742	112,623	795,445	337,383	3,696,480

INCOME TAX.

INCOME TAX. General.

There was no change in the Income Tax Law (Act II. of 1886) during the year, or in the rate at which the tax was levied. The principal provisions of the Act are that incomes derived from salaries, pensions, and interest on securities, if amounting to Rs. 2,000 per annum, should pay five pie in the rupee (2·6 per cent.), and if less than Rs. 2,000, four pie in the rupee (about 2 per cent.); that companies should pay five pie in the rupee on their net profits; and that income derived from other sources should pay according to a graded scale from Rs. 10 on Rs. 500 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pie in the rupee. All incomes of less than Rs. 500 a year are exempted, and the tax is not levied on profits or incomes derived from agriculture (which are otherwise taxed under legislation imposed in 1877-78), or on military salaries of less than Rs. 500 a month.

The receipts and charges on account of income tax in each province were as follows :— INCOME TAX.

	Gross Collections.	Refunds.	Net Receipts.	Charges for Assessment and Collection.
	Rx.	Rx.	Rx.	Rx.
Bengal	499,428	3,231	496,197	18,244
North-Western Provinces and Oudh	247,938	2,288	245,650	207
Punjab	146,586	740	145,846	1,170
Burma	85,297	309	84,988	2,378
Central Provinces	50,726	324	50,402	56
Assam	30,980	44	30,936	193
India, General	144,198	1,040	143,158	103
Madras	265,836	2,250	263,586	2,626
Bombay	401,820	2,235	399,585	5,346
TOTAL, 1896-97	1,872,809	12,461	1,860,348	30,322
TOTAL, 1895-96	1,835,189	12,771	1,822,418	29,868

Results of the income tax during 1886-94.

A review of the results of the Income Tax Act was published in November, 1895, showing how the tax had been worked during the nine years 1886–94, for which period the law and the rates of taxation remained the same. During the nine years the income tax revenue had increased from Rx. 1,369,000 to Rx. 1,709,000, or by 25 per cent., while the costs of collection have fallen from Rx. 53,000 to Rx. 31,000, or 1¾ per cent on the receipts. Of the total revenue 23½ per cent. is contributed by the three cities of Calcutta, Bombay and Madras; 30 per cent. accrues from salaries and pensions, and 6 per cent. from interest on securities. The total number of persons assessed to income tax in India was 436,283, or one in 527 of the whole population, in the year 1893–94; and the average incidence of the impost on each taxpayer was Rx. 3½. Outside the Presidency towns and Rangoon the incidence was much smaller; for instance, in Calcutta, Bombay and Rangoon, the tax fell at over two rupees per head of the population, whereas outside these cities the incidence of the tax on the population ranged from 0·03 to 0·10 of a rupee per head. Under Part II. of the Act [Profits of Companies], the largest contributions to the Income Tax revenue in 1893–94 were made by

	Rx.
Railway Companies	29,000
Cotton spinning and weaving companies	21,000
Banking Companies	13,000

Under Part IV. [other sources of income, not being salaries and pensions, profits of companies, or interest on securities], the largest contributions were made under Professions by barristers and other legal practitioners — 49,000

Under Trade and Commerce, by money lenders — 291,000
general merchants — 88,000
piece-goods dealers — 54,000
grain dealers — 51,000

Under Property, by house owners — 49,000

Income derived from land is not, as stated above, liable to income tax.

Out of the total income tax [Rx. 1,127,000] paid under Parts II. and IV. [Profits of Companies and Trades or Professions], somewhat more than half was paid under Classes I. to VI. by persons enjoying incomes of Rx. 50 to Rx. 200; while incomes under Classes I. and II., ranging from Rx. 50 to Rx. 100 a year, yielded about one-fifth of the total receipts from all classes.

INCOME TAX.

Provincial details.

The following paragraph give provincial details for the year 1896-97:—

In Bengal the number of objections against 112,901 assessments was 10,493, as compared with 10,795 and 10,635 in the two previous years; 32½ per cent. of the objectors were more or less successful, as against 31 per cent. in the previous year; and the final demand was 2·1 per cent. below the original assessments. The total receipts in Bengal, Rx. 499,000, show an increase of Rx. 26,000, or 5½ per cent., as compared with 1895-96.

The amounts realisable under the several schedules for the last three years, as returned by the Bengal Government, were, exclusive of arrear receipts:—

—	—	1894-95.	1895-96.	1896-97.
		Rx.	Rx.	Rx.
I.	Salaries and pensions - -	100,000	103,000	105,000
II.	Profits of companies - -	32,000	38,000	46,000
III.	Interest on securities - -	6,000	7,000	7,000
IV.	Trades, professions, &c. - -	309,000	317,000	318,000

The proportion of persons assessed to the total population of Bengal was 1 to 640, and the incidence of the tax was one rupee to every 16·3 persons; outside the city of Calcutta the incidence was one rupee to every 33·2 persons of the total population. More than 50 per cent. of the income tax revenue of Bengal accrued in the city of Calcutta.

In the North-Western Provinces and Oudh, out of 72,193 assessments on trades and professions, the number of objections was 22,153; 28 per cent. of the objectors were in some degree successful, the proportion in the previous year having been 27; and the final demand was 5 per cent. below the original assessment, as in the four preceding years. Notices of arrear were issued in 2,598 cases, and in 901 cases further coercive measures had to be taken against defaulters; while in 192 cases attached property had to be sold for arrears. The total receipts, Rx. 240,600, were about the same as in the previous year. One person was assessed in every 648 of the whole population. Of the whole tax 75 per cent. was paid by trades and professions, and 14 per cent. by Government servants on their salaries.

In the Punjab objections were filed against 29 per cent. of the original assessments under Part IV.; of these, 34 per cent. were successful, as compared with 35 per cent. in the year 1895-96; and the final demand was 6 per cent. below the original assessment. Rx. 472 of the year's demand were uncollected at the end of March. The total receipts in the Punjab were Rx. 131,600, showing an increase of Rx. 1,800, or 1⅓ per cent., on the receipts of the previous year, the increase being mainly under Part IV., namely, assessments on trading and professional incomes. Nearly 18 per cent. of the whole collections accrued on salaries and pensions.

In Burma the income tax was applied to all Government servants and to 92 towns in the lower province, and it was extended to Mandalay in Upper Burma after the end of the year; income taxpayers were exempted from capitation tax. In the year 1896-97 the number of objections preferred against 11,281 assessments under Part IV. was 2,929, of which 60 per cent. were more or less successful; and the final demand was 19 per cent. below the total of the original assessments. Against 114 assessments under Part II. (Profits of Companies) one objection was preferred, and was partly successful. In 917 cases warrants were issued against defaulters, as compared with 927 in 1894-95, and 1,895 in 1895-96. Of the whole income tax revenue in Burma in 1896-97, 33 per cent. was paid on salaries, pensions, and securities. The total receipts of the year 1896-97 were Rx. 77,800, as compared with Rx. 73,900 in the previous year; the increase was attributed to the returning prosperity of the rice trade.

In Assam the yield of the tax was one per cent. more than in the previous year. The number of objections was 957, against 5,558 assessments under Part IV.; 367 objections were successful in whole or in part; and the final

demand under Part IV. was nearly 3 per cent. below the original assessment. The number of processes for the realisation of arrears was about the same as in the previous year; and in 7 cases the property of defaulters was sold for arrears, against 11 in 1895–96. The proportion of collections on salaries and pensions was 15 per cent., and on profits of companies 44 per cent., of the whole income tax revenue. INCOME TAX.

The total number of persons finally assessed to income tax in Madras was 75,435, as compared with 71,973 in the previous year. Against 69,580 assessments under Part IV., 26,107 objections were preferred, of which 6,858, or 26 per cent., were wholly or partly successful. The final demand was 7 per cent. below the original assessment. In 40,654 cases notices had to be issued against defaulters, and in 291 cases property was sold on account of arrears. One per cent. of the revenue due remained unrealised when the report for the year was submitted. The collections for the year were Rx. 240,000 showing an increase of 8 per cent. over those for 1895–96; most of the increase accrued under Part IV. (Trades and Professions) of the Act, and was chiefly due to a general revision of assessments effected during the year; 73 per cent. of the total demand came under that part, and 21 per cent. was paid on salaries. The assessments fell at the rate of one in 416 on the whole population, and at 29½ rupees on each taxpayer.

Almost half the income tax demand of the Bombay Presidency accrued in the city of Bombay, where the average incidence on each taxpayer was 79 rupees, against an average of 25 rupees in the interior. The original number of persons assessed to the tax was 81,888, which number was reduced on revision and appeal to 79,629; and the final demand for the whole Presidency was Rx. 406,000, against original assessments amounting to Rx. 419,000. The share of the final demand assessed upon official salaries, pensions, and securities was about 15 per cent. of the whole. The total collections, including arrears and penalties, were Rx. 389,000, against Rx. 395,000 in the preceding year. The decrease occurred chiefly in Bombay city, and was due in part to the effect of the plague and famine on commerce. In Bombay city, apart from the tax on salaries and securities, the income tax collections were Rx. 194,000, as compared with Rx. 141,000 in the districts of Bombay and Sind outside the Presidency town.

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

Surveys.

The work of "The Survey of India" is divided under five heads, namely:—

1. Trigonometrical Survey.
2. Topographical and Forest Survey.
3. Cadastral Survey.
4. Special Surveys and Explorations.
5. Map Production.

The account given below of progress under heads one, two, four and five relates to the work of the season 1895–96.

Trigonometrical.

Out of 21 survey parties, and two small survey detachments, employed during the year, one party (No. 24) was engaged on trigonometrical work. The principal triangulation, running from Mandalay to Manipur was tested and corrected, the series being carried over a direct distance of 122 miles and over an area of 360 square miles. Two new stations were fixed, and two new figures were completed. In Biluchistan the important town of Las Bela was fixed. The Indus series of triangles was carried 50 miles due west. Horizontal and vertical angles were taken at 14 principal and four secondary stations, while astronomical observations were taken for azimuth at two stations in Burma.

Topographical.

Six parties were engaged on topographical work, and accomplished in all 19,798 square miles of topographical survey, as against 21,588 in the preceding year. Party No. 10 effected 1,757 square miles of survey in the Southern Mahratta country and the Konkan, thus completing the topographical survey of the Southern Mahratta country. Party No. 11 mapped on the 1-inch scale 1,355 square miles, in the Shan States to the east and south of Fort Stedman (Nyaungwé); the country was difficult and covered with forest in parts; the highest point was more than 8,000 feet above the sea. Party No. 12 was transferred to Sind, and began, at the urgent request of the local authorities, the re-survey of that province; 1,918 square miles of 2-inch and 1-inch survey were accomplished before the end of the season. Party No. 15 was divided into four detachments, of which one was employed with the Afghan-Baluch Boundary Commission; one near Multan; one in the Zhob Valley; and one under a Moslem officer, was engaged on special duty in Persia and on the Perso-Baluch frontier. These parties surveyed on the $\frac{1}{2}$-inch and larger scales 12,009 square miles, besides 24,200 square miles of geographical work on the $\frac{1}{4}$-inch and $\frac{1}{8}$-inch scales. Party No. 18 continued to be employed in the Punjab Himalayas, and effected the survey of 817 square miles, chiefly in the Kangra district and the feudatory states thereto attached. In this area were 191 forest blocks, covering 200 square miles, which were mapped on the 4-inch scale, for parts of which a classification of forest trees and of soils was completed. Party No. 21 effected 937 square miles of 1-inch topographical survey in the northern Shan States; one detachment of this party accompanied the Sana column, and another detachment went with the Myitkyina column; besides the regular topographical work, 5,079 square miles of geographical survey were obtained, and the peak Sabu Pum, 13,000 feet high, was located on the China boundary.

Forest Survey.

Four parties were, as in the previous year, employed in mapping the forest reserves. Party No. 14 completed the survey of the Betul forests, and began

the Damoh forests of the Central Provinces; they effected 867 square miles of detail survey, including classification of soils and forest growth; the cost of the detail work was 81 rupees per square mile. Party No. 17 was engaged in the reserved forests of the Poona, Thana, and North Kanara districts of Bombay; 952 square miles of detail survey were accomplished; the rates of work on the 4-inch scale was 67 rupees per square mile, as compared with 81 rupees in the previous year. Party No. 19 was engaged in the forest reserves of Kurnool, Salem, and North Arcot; 964 square miles of detailed survey were accomplished, one per cent. less than in the previous year. Party No. 20 effected the survey of 450 square miles of reserved forest in the Pegu and Toungoo districts of Burma. The whole area of forest surveys accomplished by all these parties during the year was 3,202 square miles, against 2,612 square miles in the previous year; a further area of 1,712 square miles of forest was surveyed by the survey branch of the Forest Department. Thus a detail survey was effected of 4,914 square miles of forest reserves, in all, during the year 1895-96. Surveys.

The work of the cadastral and traverse survey parties is noticed below under each of the provinces where they were employed. Cadastral Survey.

The geodetic work of determining by the electro-telegraphic method of the difference of longitude between Greenwich and Karachi was brought to a very successful conclusion. Geodetic.

The demand for maps again showed some decrease. The number of new maps and new editions of maps completed during the year was 5,444, of which 5,054 were cadastral maps. In all 862,623 copies of maps and plates of different kinds were printed off during the year, besides 668,795 impressions from type, 56,288 heliogravure prints, and 3,069 photographic prints; the total value of the work was Rx. 22,082, of which Rx. 11,096 was the value of maps issued to officials, Rx. 8,636 was the value of extra departmental work, and Rx. 2,351 the price of maps sold. Among notable new maps of the year were charts of parts of the north-west frontier, maps of Upper Burma, and forest maps. Map printing.

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables, were continued during the year at 13 stations, of which seven are permanent and six are temporary for five years. No serious interruption occurred at any of the tidal observatories, and the tidal operations of the year are reported to have been very successful. The observatories at Minicoy Island and at Trincomalee were closed after the completion of five years. A new observatory was established at Suez. The total number of ports treated since 1877, for which tide tables are issued, is 34, of which 23 have been closed, and 11 are now in operation. So far as predictions of high water were concerned, 96 per cent. of the entries in the tables were correct within eight inches of actual heights at open coast stations, and 74 per cent. at riverain stations; while as to time of high water, 66 and 59 per cent. respectively of the entries were correct within 15 minutes. All the observatories were inspected during the year, and steps were taken to correct shortcomings or deficiencies detected. Tidal and levelling operations.

The levelling operations of the season consisted of a line of double levels from Raipur, on the direct line from Bombay to False Point, to within 60 miles of the Vizagapatam tidal station. The length of double-levelling accomplished was 278½ miles, much of it over rough, hilly, sparsely-peopled country; the total rises and falls amounted to 19,056 feet; the instruments were set up at 4,149 stations; and the heights of 24 embedded bench marks, of 162 inscribed bench marks, and of 4 G.T. stations, were determined.

The only explorations effected during the year were those made on the confines of the Shan States, in the upper Irrawaddy region beyond Mogoung, and on the Baluch and Persian border. These have been noticed above under parties Nos. 11, 15, and 21. Explorations.

The survey vessels "Investigator" and "Nancowry" were employed on marine surveys throughout the open season of 1895–96, the staff being em- Marine Survey.

SURVEYS.

ployed in the chart office during the rainy months. The principal coast survey work was off the Andamans, in the Gulf of Martaban at the mouth of the Rangoon river, and in the neighbourhood of Bombay Harbour. Off the Andamans, sundry rocks and shoals were discovered, which might cause serious risks to vessels if the waters had remained unsurveyed. Considerable changes were found to have occurred in waters and shoals of the Martaban Gulf. The survey of the Bombay Harbour region, and of the Thana and Bassein creeks, adjacent thereto, was finished, and new charts were prepared The naturalist on board the "Investigator" reports that the hauls of the trawl from the mud of the Martaban Gulf yielded little of interest; investigations into the littoral sea fauna of the Andamans were of interest, and one haul at a depth of 400 fathoms yielded many valuable and some new specimens. But on the whole the finds of the year were not rich.

METEOROLOGY.

During the year 1896–97 meteorological observations were recorded at 204 stations, stretching from Bagdad and Aden on the west, to Dibrogarh and Bhamo on the east, and from Resht on the Caspian Sea, Kabul and Kashgar on the north, to Galle in Ceylon, the Nicobar, Seychelles, and Minikoi Islands, and Mergui on the south. Of these stations 173 were maintained by the Government of India, subject to the immediate control of the meteorological officers. New observatories were established during the year at Ootacamund, at Vellore, and at places in Kashmir, Cooch Behar, Jodhpore, and other Native States. Two observatories under Government officers were closed during the year at Chamba in the Kangra Himalayas and at Gnatong near the Tibet or Sikkim border. Full information was obtained from 25 Himalayan and sub-Himalayan stations concerning the snowfall of the year, and a forecast was published in June of the probable effect of the snowfall on the ensuing south-west monsoon. Of the 173 observing stations belonging to the Government,—

Four were observatories of the first class, where autographically registering instruments are kept to record rainfall, barometric and thermometric readings, humidity, wind force, and solar-actinometric observations;

Sixty were second-class stations, where less frequent observations are recorded;

One hundred and nine were third-class stations, which record twice a day the rainfall, the thermometric maxima and minima, and the range of the barometer.

These observations are communicated in some cases by telegraph to the head-quarters of the Meteorological Department, the chief officers of which are responsible for inspecting observatories and stations, so that instruments may be kept in good order and observations may be faithfully recorded; the Department also undertakes the publication of storm warnings, seasonal forecasts, and periodical compilations of meteorological results. Besides the data furnished by the observatories described above, returns were kept of the rainfall at 2,221 stations.

The forecast of the probable rainfall for the monsoon of 1896 was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, and on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The forecast predicted a generally normal and favourable rainfall over the greater part of India; indicated that the rainfall might be short in Sind, Rajputana, and parts of the Punjab; but it was mentioned that the Seychelles observations pointed to the likelihood of a generally feeble monsoon, and, that, if those indications were more significant than had been assumed, the rainfall might be generally defective, and the general forecast would have to be considerably modified.

Events proved that the dominant features of the monsoon were the deficiency of rain over the greater part of India, and the early termination of the rains over nearly the whole of Northern and Central India and the Deccan.

The average and actual rainfall of the years 1895 and 1896 in the regions into which India has been divided were as follows:— SURVEYS.

Meteorological Division.	Area, Square Miles.	Number of Stations.	Normal Rainfall.	Actual Rainfall, 1895.	Actual Rainfall, 1896.
			Inches.	*Inches.*	*Inches.*
I.—Punjab Plains	120,000	29	21·52	19·30	13·35
II.—North-Western Provinces and Oudh.	83,500	45	37·49	38·11	23·69
III.—Rajputana	67,000	19	28·42	22·13	24·13
IV.—Central India States	91,000	20	42·01	34·52	36·22
V.—Bihar	30,000	15	45·01	41·48	32·52
VI.—Western Bengal	38,000	10	49·39	42·62	45·59
VII.—Lower Bengal	54,000	28	66·64	50·41	52·86
VIII.—Assam and Cachar	61,000	16	96·39	90·03	78·26
IX.—Orissa and Northern Circars	27,000	16	48·00	52·16	38·36
X.—Central Provinces, South	61,000	18	51·38	48·15	56·77
XI.—Berar and Khandesh	43,000	13	35·96	31·76	31·97
XII.—Gujarat	54,500	13	33·03	25·53	36·67
XIII.—Sind and Cutch	68,000	10	8·49	5·98	8·74
XIV.—North Deccan	48,000	13	30·54	31·97	30·51
XV.—Konkan and Ghâts	16,000	11	138·92	121·34	160·41
XVI.—Malabar and Ghâts	18,000	8	113·89	108·50	134·92
XVII.—Hyderabad	74,000	16	32·71	37·69	23·36
XVIII.—Mysore and Bellary	58,000	18	29·52	31·50	25·78
XIX.—Carnatic	72,000	37	36·06	42·61	38·23
XX.—Arakan	11,000	7	148·04	121·99	137·21
XXI.—Pegu	32,500	7	71·95	64·08	75·94
XXII.—Tenasserim	10,500	4	172·38	156·96	199·78
XXIII.—Upper Burma	?	13	38·73	41·55	33·31

The deficiency of rain was very serious over the Punjab, the N.W. Provinces, and Oudh, the greater part of the Central Provinces, Central India, and Bihar. The rainfall of the south-west monsoon practically ceased over these regions soon after the end of August.

Twelve notable storms, none of them very serious, were observed in the Bay of Bengal; and 11 storms, one of which in September was severe, were reported from the west coast of India. Storm signalling was effectively performed at Bombay and Calcutta; ample and definite warning is said to have been given of all the more important storms that visited the coasts of India during the year. These warnings were sent to 21 ports on the Bay of Bengal and to 22 ports on the west coast. The system of flood warnings to canal, civil, and railway officers continued to be useful; 289 such warnings were issued by the Meteorological Department during the year; in the previous season of much heavier rainfall, 552 of these warnings were issued. The usual daily weather reports and charts, weekly weather reports published in the official gazettes, and the monthly weather report giving a summary of the barometrical, wind, and thermometric observations, and of the variations from normal conditions, were published regularly.

Among the special observations taken during the year were thunderstorm observations, solar and terrestial radiation observations, underground temperature observations, and bright sunshine observations.

The number of stations inspected and instruments verified by officers of the Meteorological Department was considerably larger than in the preceding year. Forty-nine observatories were found to be "satisfactory" or "very satisfactory"; 14 were said to be "fair"; and nine were in bad condition.

Full report on the meteorological results of 1897 is not yet available; but after the drought of 1896 the plentiful rainfall of 1897 has been of inestimable value to India; and some account of that rainfall may be here given. The rainfall average for the whole of India in 1897 was 0·11 inch below normal; and the rain of the monsoon season was favourably distributed with the sole exception of a break and deficiency of rain during the latter half of June; by Rainfall of 1897.

the 6th July the monsoon current regained vigour, and anxieties, which had been keen, were relieved. Of the 27 regions, into which India is divided for the purpose of meteorological statistics, 17 received a normal or within 10 per cent. of a normal rainfall. Five regions, namely, the Nilgiris, the Panjab Plains, Hyderabad, the Central India States, and the Carnatic received a rainfall more than 10 per cent. below normal, but nowhere was the defect greater than 17 per cent.; in the year 1896 the rainfall of 13 regions out of 27 had been more than 10 per cent. below normal, and the defect had been as high as 38 per cent. During 1897 the rainfall was more than 10 per cent. above normal in five regions.

During 1897 the rainfall recorded at some hundreds of stations ranged from 2 inches at Lindsay in Baluchistan to 467 inches at Cherrapoonjee in the Assam hills; over more than half of India the rainfall of 1897 exceeded 30 inches. The dry region, with rainfall of less than 30 inches, was smaller than usual; it included parts of every British province except Bengal, Lower Burma, the Central Provinces, and Assam, and parts of most of the larger Native States. The tracts where the rainfall of 1897 fell short of 15 inches included Baluchistan, Sind, most of Rajputana, the South and West Punjab, part of Cutch, and a small tract of Upper Burma.

SETTLEMENTS AND CADASTRAL SURVEYS.

SETTLEMENTS AND CADASTRAL SURVEYS.

The term "Settlement" is applied in Indian revenue affairs to the process of assessing the land revenue demand. Occasionally in newly acquired or specially backward tracts, the land revenue is assessed for a short term of years on a general review of the circumstances and capabilities of the land and people concerned; such a process is called a summary settlement. But a regular settlement is a more complicated affair, and consists of many stages. In the first place, every separate estate or holding is demarcated by permanent marks on the ground; and disputes between neighbouring right-holders are investigated and decided. Every estate or holding is then surveyed and mapped, all boundary marks, wells, and buildings being shown on the field or cadastral maps. Sometimes these field surveys and maps are made by trained professional surveyors belonging to the Survey department. When the field surveys are made by local or village surveyors, such agents are trained by, and their work is independently tested by, professional surveyors. The work of the professional survey, whether cadastral maps or traversing, is based on, and is checked by, the independent scientific work of the Grand Trigonometrical and Topographical Surveys. After the field maps are prepared, the next process is to classify or record each field according to its productive value, as evidenced by its soil, by the amount of its produce, or by the rent it pays. A record is at the same time drawn up of all rents paid, and of all rights, whether landlord rights, or tenant rights, or rights of user, over all the ground, buildings, wells, and trees shown in the map. Then the assessing officer (or settlement officer, as he is often called) compiles the information obtained for all the lands in a circle of villages; and on a review of all these data, of the past fiscal history of the tract, of the range of prices, of the accessibility of markets, and of other general considerations, he proposes rent rates or revenue rates for the several classes of lands in the circle. In the determination of rent rates or revenue rates for any tract, the rainfall, the sub-soil water level, and irrigation facilities are important factors; but improvements made by the owners or occupiers themselves are not held to enhance the assessable value of the land. In re-settlements in the North-West Provinces and Oudh, the rents now enjoyed by the owner of the land are practically the main basis on which the new land revenue is assessed. The rent rates or revenue rates proposed by the settlement officer, and the grounds on which they were based, are then investigated by a superior officer, and are not adopted until they have been accepted or modified by the latter.

In provinces where the zemindari tenure prevails, that is, where single proprietors or proprietary brotherhoods possess large estates of several

hundreds or thousands of acres, the State revenue is assessed at an aliquot part (usually about one-half) of the ascertained or assumed rental. The revenue, though it is fixed with reference to acreage rates on the land actually cultivated, is assessed on, and is payable by, each estate as a whole; the assessment remains unchanged for the 30 years or other period of the settlement; the proprietor can bring as much as he likes of his waste or fallow land under the plough; and it is only on re-assessment at the end of the term of the settlement that the State obtains any increase of revenue on account of the extensions of cultivation during the settlement period. In provinces where the ryotwari tenure prevails, that is, where each petty proprietor holds directly from the State, generally cultivates his own land, and has no landlord between himself and the Government, the revenue is separately assessed at an acreage rate on each petty holding, and land revenue becomes payable at once, or after a short term of grace in the case of uncleared lands, on all extensions of cultivation. The ryotwari proprietor is at liberty to throw up his holding, or any portion of it, at the beginning of any year, after reasonable notice; the zemindar or large proprietor engages to pay the revenue assessed upon him for the term of the settlement. SETTLEMENTS AND CADASTRAL SURVEYS.

After the revenue is assessed and the assessment is sanctioned, copies of the field map, of the schedule of fields, and of the record of rights are made; one copy is given to the proprietor; one copy is lodged in the district court-house; and usually a third copy is placed in the sub-divisional or tahseel office. Through the agency of the local officials of each village or circle the field maps and record of rights are corrected or written up year by year, so as to make them at all times faithful accounts of current rural facts and circumstances. When revisions of assessment are undertaken at the end of the settlement, the village maps and records serve, after adequate testings and corrections, as the basis for re-assessment; and in this way a re-settlement is a shorter and less costly affair, and causes much less harassment to the people than is involved in an original settlement. At the present time re-settlements have been practically completed in Bombay, and are being made in some districts of Madras, the Punjab, Oudh, Berar, and the Central Provinces; also in outlying parts of Bengal. Original settlements are still being prosecuted on the west coast of Madras and in Lower Burma; while in Upper Burma the first settlement of the land revenue has been begun.

The Bengal report brings the account of survey and settlement affairs down to September 1896; cadastral surveys or settlements were in progress in the three districts of Orissa, in Chittagong, in Palamau, in Darjeeling, and on some hundreds of petty estates and plots in different parts of the province; while a cadastral survey and record of rights was being prosecuted on private lands in the four districts of North Behar, namely, Mozufferpore, Sarun, Champaran, and Darbhanga, in Tipperah, and in three other districts. Among the temporarily settled tracts of Bengal, Orissa is the largest.

Bengal.

Field maps and records had previously been completed for all the districts of Orissa, at an average cost of $4\frac{3}{4}$ annas per acre. The attestation of holdings was effected during the year for 4,348 villages, or more than one-third of all the villages of Orissa, but no revised assessments had been framed by the end of the year, save in the Government State of Cuttack, where the revenue was enhanced by 22 per cent. The total cost of the Orissa survey and settlement had reached Rx. 217,000 by the 30th September 1896. In the Chittagong Settlement the rents of 210,164 tenants and the revenue payable by 64,072 petty landholders have been settled, yielding an increase of Rx. 16,800, or 50 per cent. on the former revenue. The cost of the Chittagong Settlement up to date has been Rx. 137,400. In Palamau the assessments were finished, and yielded an increase of Rx. 1,400, or 30 per cent. on the revenue. In Darjeeling the field survey was completed, and assessments were being framed. The cadastral survey of the Kolhan lands (1,406 square miles) in Singhbhum was finished, and much progress was made with the re-assessment.

On the estates of the Maharaja of Tipperah 556 square miles, and on the Tikari Raja's estate 605 square miles were under settlement, the cadastral

SETTLEMENTS AND CADASTRAL SURVEYS.

survey had previously been completed. In Tippera, rents were recorded for 600 villages, with the result that the rents of 277 tenure-holders were raised by 62 per cent., and the rents of 3,297 ryots were raised 20 per cent. The work has so far been expensive, costing 17 annas per acre. On the Tikari estate the record of rights was almost finished; out of 31,257 ryots, only 4 per cent. were found to be tenants-at-will, all the rest possessing occupancy rights; the average rent rate was found to be 4¼ rupees per acre for occupancy ryots.

In North Behar cadastral surveys were prosecuted in the Mozufferpore, Champaran, Sarun, and Darbhanga districts, the total area of which is 12,524 square miles. In Mozufferpore the survey and the record writing have both been finished for this district, which contained over four million separate plots or fields, and over one million separate tenancies. Fair rents had to be settled for only 16,481 tenancies, or for less than 2 per cent. of all tenancies; and the total rents in these disputed cases were raised 8 per cent. The final record of rights has been prepared and published for 3,658 villages; final publication had still to be completed for 897, out of the total of 4,510 villages in the district. The tenants-at-will were found to be less than one-tenth of all the tenants; and rent rate ranged from 4⅓ rupees per acre for occupancy ryots to $5\frac{1}{10}$ rupees per acre for tenants-at-will. In Champaran the survey has been finished, and the record of rights is approaching completion, 891 villages out of a total of 2,855 remaining for final publication of the record. Fair rents had to be settled for 94,604 out of a total of 402,800 tenancies, and rents were enhanced on the average 9 per cent. in these disputed cases. Over 92 per cent. of all the tenants were found to possess occupancy rights of some kind; and the rent rates averaged 2¼ rupees per acre for both occupancy ryots and tenants-at-will. Most tenants-at-will pay their rents in kind, and their fields are said to be inferior to those held by occupancy ryots. In the 4,296 villages of Sarun half the survey work had been done, and about one-quarter of the record of rights. Fair rents had to be settled for 49,016 tenancies out of a total of 304,264 tenancies, with a resulting enhancement, generally on compromise, of 11½ per cent. In Sarun rent rates have, so far, ranged from 4⅛ rupees for occupancy ryots to 3⅞ rupees for tenants-at-will. The total cost of the work is set down at 8 annas per acre in Mozufferpore and Champaran, and 10 annas per acre in Sarun, where the business had been found more complicated. The survey began in the Darbhanga district during the year, where 638 villages were surveyed; disputes were found to be far more numerous than in other districts, and 57,928 disputes were decided regarding the 1,085,010 fields that were surveyed. These disputes were apart from any questions of rent which may have to be faced at a later stage of the operations.

North-Western Provinces and Oudh.

Revisions of settlement were in progress over parts of two districts in the North-West Provinces and nine districts of Oudh. In Badoun assessments were framed for a large part of the district, and the work had cost Rx. 26,300 up to the end of the year. In Bijnor surveys and correction of maps were in progress, and Rx. 14,200 had been spent. In Unao the settlement was closed. In Lucknow the settlement was nearly finished, at a told cost of 85 rupees per square mile. In Pertabgarh and Rae Bareli the work was practically completed. In Sultanpore the re-assessments were sanctioned, and have yielded an increase of Rx. 29,000 in the land revenue. In Hardoi the re-assessments have been completed, and the work had cost 85 rupees per square mile up to the end of the year. In Sitapur the work of re-assessment is far advanced, and had yielded, up to date, an increase of Rx. 10,172, or 33 per cent. on the land revenue. In Barabanki the re-assessment was completed, and the work was nearly over, having cost, up to date, 98 rupees per square mile. In Fyzabad part of the re-assessment had made progress. In Meerut the cadastral survey made progress, and materials for re-assessment were being prepared. At the close of the year sanction was given to the beginning of settlement operations in Shahjehanpur and Bahraich. It was not decided how far re-survey would be required in Lalitpur and certain other tracts of Bundelkund, where settlement operations have to be begun.

The rent-rolls for all districts of the North-West Provinces and Oudh show that the rental demand of the year 1894–95 was Rx. 12,236,000, out of which the landlords realised Rx. 9,422,000 during the year, besides Rx. 1,247,000 on account of arrears of previous years. In consequence of the depression caused by bad season, the percentage of rent collections to the total rent demand has fallen from 93 per cent. in 1892–93 to 91 per cent. in 1893–94, and to 87 per cent. in 1894–95; in the latter year the proportions of collections was 85 per cent. in the North-West Provinces, and 92 per cent. in Oudh. The rent-rolls include only the reduced rents paid by privileged tenants, and include no computed rents on account of lands cultivated by proprietors. The cultivated area is approximately held thus :— SETTLEMENTS AND CADASTRAL SURVEYS.

	N. W. P.	Oudh.
	Acres.	*Acres.*
By cultivating proprietors - - - -	6,026,000	965,000
„ privileged tenants - - - - -	927,000	348,000
„ ryots with occupancy rights - - -	8,809,000	112,000
„ tenants-at-will - - - - - -	11,079,000	7,390,000
„ rent free - - - - - - -	469,000	389,000

The Imperial Survey Department was not employed on revenue or cadastral survey in the Punjab during the year. Settlement operations were in progress in parts of five districts, and were completed in one of these districts, Peshawur, by the close of the year. As was mentioned in a previous Statement, the work is being done as expeditiously and economically as possible; and no general re-survey is attempted, though on some estates and in occasional tracts the existing field maps are so incorrect as to necessitate a fresh survey. Punjab.

In Peshawur the settlement was completed; it has cost Rx. 31,000; and it has yielded an increase of Rx. 20,500 in the revenue, or 28 per cent. on the former demand. In Montgomery the re-measurements are done, and progress was made with the assessments; so far, the result has been to reduce the area under fixed and to increase the area under fluctuating assessments.

In Jhelum, where settlement was begun, it was found that a fresh village survey was required, and that has been undertaken by village officials who have been specially trained for the work. The revised assessments of Dera Ghazi Khan have been framed, and it was expected that the settlement would shortly be completed; it has cost Rx. 26,500; it has occupied four years, and it has resulted in an increase of Rx. 7,600 a year in the land revenue, and of Rx. 3,000 in the canal water rent. The re-settlement of Mooltan was begun.

In Lower Burma one party of the Imperial Survey was employed on the cadastral survey of the Thaton and Pegu districts; this party effected 509 square miles of cadastral work at a cost of Rx. 148 per square mile, besides 494 square miles of topographical survey. Locally trained surveyors accomplished cadastral surveys of 21 square miles of revision survey and seven fisheries in the Tharrawaddy district. Assessments were sanctioned for 985 square miles in the Amherst and Thaton districts; these assessments yielded an increase of 55 per cent. in the land revenue of the tract. The 20 Government survey schools have worked successfully, with 404 students on the rolls at the end of the year. The course includes active work with a surveyor in the field. The number of students obtaining certificates during the year was 183, out of 426 presenting themselves for examination; the proportion of passed students was lower than in the previous year. The area under supplementary survey, that is, the area for which the field maps and records are tested and corrected yearly, increased from 20,243 to 21,237 square miles in Lower Burma, and from 2,534 to 3,114 square miles in Upper Burma. The area transferred by private sale was 339,000 acres, against 304,000 in the previous year, for Lower Burma. The average price paid for land was somewhat lower in most districts, compared with the previous year. The area sublet to tenants was 1,223,000 acres, or 20 per cent. of the whole cropped area in Lower Burma; the rent realised per acre came to an average of nearly 7 rupees, as compared with an average revenue rate of nearly 2 rupees per acre. Burma.

SETTLEMENTS AND CADASTRAL SURVEYS.

One cadastral survey party in Upper Burma effected the survey of 1,285 square miles in parts of five districts at a cost of 131 rupees per square mile. No assessments were sanctioned during the year.

Central Provinces.

In the Central Provinces cadastral survey has now been completed in all tracts where re-survey had begun, except some of the zemindarees or chiefships; during the year the settlement of Hoshungabad was finished, the re-assessment of Saugor was completed, and final report was submitted on the revised assessments of the Damoh district; while assessment work was in progress in seven districts, namely, Hoshungabad, Saugor, Nimar, Balaghat, Seoni, Bhandara, and Betul. Assessments and the completion of the record of rights were prosecuted in the chiefships of Chutteesgurh. The revised assessments framed during the year yielded an increase of Rx. 23,500 in the revenue. In the Hoshungabad district the revised assessments yielded an increase of Rx. 36,800, or 78 per cent., in the revenue; in Saugor, of 50 per cent. The local government is confident that with a return of good harvests the settlements, which have yielded these large increases, will be found to work well. In some cases the enhancements are spread over a period of three to five years.

Assam.

Regular survey operations in the province of Assam were confined to the districts of Cachar and Sylhet, for the purpose of checking work done by local agency, and were effected over 1,419 square miles; cadastral surveys were effected over 467 square miles, and traverse surveys over 333 square miles; while revision surveys were prosecuted by local agency over 217 square miles in the Brahmaputra Valley. The cadastral survey of Cachar has now been completed. The re-settlement of the Jaintia tracts in Sylhet was finished at the close of the year. A very small area in Cachar still remains for revision survey. Cadastral surveys had been previously completed in the Assam Valley; and the re-settlement of the revenue was finished in 1895–96.

The Statement for 1893–94 described how revised revenue rates had, after the old rates had stood for 26 years, been sanctioned for the districts of the Brahmaputra Valley. During the year 1895–96 the re-classification of all cultivated lands under the new rates was finally completed with the fiscal result of increasing the land revenue of the Assam Valley from Rx. 320,000 in 1890–91 to Rx. 441,000 in 1895–96, or about 37 per cent; some part, however, of this increase was due to the normal extension of cultivation during the five years.

Madras.

In Madras five parties were employed on original cadastral surveys and on re-surveys during the year 1896–97. The area of original survey effected during the year was 2,387 square miles; besides 1,074 square miles of cadastral re-survey. The work was done in parts of eight districts, namely, Malabar, South Canara, Anantapur, Tanjore, Kurnool, Madura, Coimbatore, Kistna, Salem, and Godavari. The village accountants (*karnams*) performed a considerable share of the business, which was in some districts much scattered. The forecast now shows 6,286 square miles remaining to be surveyed or re-surveyed; of this area 4,416 square miles are in Kurnool, where the work should be completed by 1902. Sundry surveys of municipal areas, of rent-free and proprietary villages, have still to be undertaken. The number of copies of survey and other maps struck off during the year was 426,000, or 91,000 more than in 1895–96. The cost of the survey during the year was Rx. 57,003; this includes Rx. 11,400 expended on maintaining boundary marks, and on mapping for other departments. The total outlay on survey and settlement, since operations began in 1858, has been Rx. 3,487,000; while the net increase of revenue secured has been Rx. 838,000, or 24 per cent. on the outlay.

Bombay.

In Bombay, where survey and settlement work are approaching completion, three parties were employed in four British districts during the year, while a small party was employed in and paid by Native States. During the year ending October 1896, the parties in British districts measured an area of 1,351 square miles, and classified an area of 1,523 square miles, besides considerable areas in the Surat district, whereof the old measurement and classification were tested and found correct. The largest area was done in Surat, where the cost of the combined operations was 118 rupees per square mile, against 165 in the previous year; in the Deccan the combined cost was

345 rupees per square mile against 355 rupees in 1894–95. Much of the work consisted of testing and correcting old surveys and records, rather than of measuring the land anew; and the average expenditure on survey and classification per square mile for British territory fell from 228 rupees to 151 rupees. The cost of the Department during the year was Rx. 36,683, or Rx. 1,972 less than in the preceding year. The revised assessments of the year amounted to Rx. 115,000, which was Rx. 25,500, or 29 per cent. above the previous demand. The total increase of revenue secured by the settlement revision operations in Bombay, up to October 1896, came to Rx. 430,000 a year, or 30 per cent. on the former demand; this increase is outside the yearly increment of revenue due to the extension of cultivation. The cost of the revision operations, exclusive of work in Sind, has been Rx. 682,000. SETTLEMENTS AND CADASTRAL SURVEYS.

In Berar, re-settlement had begun in consequence of the expiration of the original settlement, which was made on the Bombay system about 30 years ago. The total area to be dealt with is 13,350 square miles, of which 12,134 square miles are either under crop or current fallows. The original measurement and classification of the land are being left untouched, save in a few cases where tests are applied to the old work, or for special causes re-measurement is found necessary. A further year's testing shows the old work of 1861–67 to be in the main good and trustworthy. Out of 3,459 square miles, over which the survey has passed during the past two years, only 133 square miles, or about 3 per cent., had to be re-surveyed; over 97 per cent. of the area of the old surveys were found to be correct. Four survey parties were at work, consisting chiefly of indigenous surveyors. The survey was completed for 1,065 villages, against 575 in the previous year; re-measurement was effected of 49,000 acres, and for 1,378,000 acres the old work was confirmed. The cost of the combined survey and settlement operations came to 21 rupees per square mile. Re-settlements were sanctioned and announced for two subdivisions of the Akola district and one subdivision of the Buldana district. The increase of revenue secured will in one year more than cover the cost of settlement, which was Rx. 3,100 for the year. It has been decided not to continue the costly cadastral survey in the hill country north of Ellichpur, but to be content with a careful revision of the yoke (or plough) rates of assessment. Berar.

VII.

LAND REVENUE.

LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX, AND WARDS' ESTATES.

THE subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the year 1896-97; also the net land revenue for the past two years.

DETAILS of LAND REVENUE and EXPENDITURE.

——	Bengal.	North-West Provinces and Oudh.	Punjab.	Lower Burma.	Upper Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
REVENUE.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Ordinary Land Revenue	3,779,011	5,062,490	2,137,797	1,163,965	132,857	656,599	559,833	132,852	5,004,024	3,464,531	22,093,949
Sale of Proprietary Right of Government in Land.	278	706	1,204	—	—	3	—	30	2,893	—	5,114
Assessment of quit-rent of alienated lands.	8,603	—	22,077	—	—	—	—	—	—	981,460	1,012,140
Sale of Waste Lands and Redemption of Land Revenue.	7,810	642	70,022	—	—	—	627	484	1,940	—	81,525
Capitation Tax or House Tax levied in lieu thereof.	1,151	—	—	407,990	399,904	—	—	864	—	—	809,909
Receipts for the Improvement of Government Estates.	46,361	—	—	—	—	—	—	—	—	—	46,361
Fisheries and other Receipts classed as Miscellaneous.	18,269	40,536	98,655	197,778	94,467	3,894	45,768	13,251	241,515	27,811	781,944
Recovery of Survey Charges.	15,355	—	—	—	—	—	—	—	—	—	15,355
Total Gross Revenue - Rx.	3,876,838	5,104,374	2,329,755	1,769,733	627,228	660,493	606,231	147,471	5,250,372	4,473,802	24,846,297
Deduct portion credited to Public Works.	—	117,498	53,125	—	—	—	—	—	604,307	96,878	871,808
Total in Revenue Accounts for 1896-97 - - Rx.	3,876,838	4,986,876	2,276,630	1,769,733	627,228	660,493	606,231	147,471	4,646,065	4,376,924	23,974,489
Corresponding Total for previous year 1895-96 - - Rx.	3,905,221	6,016,944	2,398,699	1,727,893	757,019	767,332	597,671	145,711	5,009,559	4,876,814	26,200,955

In India the State, or the monarch, has always enjoyed a share in the rent or profits from the land. This revenue is levied according to an assessment fixed, either permanently or periodically, on estates or holdings. The assessment was fixed permanently 100 years ago on certain tracts paying about Rx. 4,300,000 a year; and it is fixed periodically, for terms of 12 to 30 years, over the rest of India. On large estates, ranging from a few hundred to many thousand acres each, the periodical assessment is a share, generally about one-half, of the rental enjoyed by the proprietors; on small estates cultivated by peasant proprietors the periodical assessment is imposed on the cultivated area at a rate per acre fixed with reference to the productiveness of the land, and representing about one-half of the estimated letting value. The permanently settled tracts comprise the greater part of Bengal, about one-fourth of Madras, and certain southern districts of the North-West Provinces. Of the temporarily settled tracts, the North-Western Provinces, the Punjab, Oudh, the Central Provinces, and Orissa mainly contain estates held by proprietary brotherhoods or large proprietors; while in Bombay, Burma, Assam, and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors. In the permanently settled

tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental; or perhaps one twenty-fourth of the gross value of the produce; in the permanently settled tracts of Madras and the North-West Provinces the incidence of the land revenue is somewhat higher. The average advantages of soil and climate are on the whole greater, and the prevailing rates of rent are, on the whole, higher in the permanently settled than in the temporarily settled tracts. In the latter tracts the land revenue represents something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall, and according to the facilities for carrying produce to markets or to the sea-board. Payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves. LAND REVENUE.

The land revenue of the year 1896–97 shows a decrease of Rx. 2,326,000, as compared with the previous year; this decrease was entirely due to the drought and famine; and it was largest in the North-West Provinces, Bombay, and Madras. The year 1897–98 will also show land revenue receipts adversely affected by the famine. But after March 1898 the land revenue will, it is hoped, again return to its normal condition of slow, gradual advance. The normal increase of the land revenue in ordinary seasons during the last six quinquennial terms may be thus shown:—

Period of Five Years from	Average Yearly Land Revenue Receipts of the Period, excluding Receipts due to Irrigation.
	Rx.
1861–65	19,931,000
1866–70	19,990,000
1871–75	20,965,000
1876–80 (includes the great famine of South India)	21,114,000
1881–85	22,122,000
1886–90	23,166,000
1891–95	24,382,000
1895–96	26,201,000
1896–97 (famine year)	23,974,000

A part of the increase during later years was due to the acquisition of Upper Burma, which yielded Rx. 167,000 of land revenue in the year 1886–87, and Rx. 627,000 in the year 1896–97.

The progress of the land revenue, the condition of the landed classes, and the relations of these classes to each other are now noticed province by province.

The rainfall of 1896–97 was considerably below the average all over Bengal both during and after the monsoon season. The early autumn crops were very short; the great winter rice crop gave less than half the normal yield on the average, and in some tracts failed altogether; and the spring crops were short. The yield of all food crops over the province was estimated to be about 50 per cent. below a good average crop. Food prices ranged very high, and in some districts stood at famine rates. Relief operations became necessary on a very large scale. Bengal.

The current land revenue demand showed an increase of Rx. 13,929, owing to resettlements of Government estates in parts of Eastern Bengal; the collections on account of the current year's demand showed a decrease of Rx. 9,025; the proportion of collections to the total demand was 97½ per cent., and 99 per cent. to the current demand; the collections were somewhat less punctual than in the previous year. Remissions increased to Rx. 17,320 as compared with Rx. 8,722 in the previous year, on account of the unfavourable season. The revenue authorities expressed satisfaction that in a year of bad harvests the revenue had been in general punctually paid. The uncollected arrears at the end of the year were Rx. 139,990, or 12 per cent. more than in the previous year. Sales of land for arrears occurred in 1,607 cases, out of

LAND REVENUE.

20,272 cases in which land became liable to sale under the law. The estates sold were all small; the total arrears due thereon were Rx. 8,500; and 234 estates, paying a yearly revenue of Rx. 725, were bought in by Government for a total price of Rx. 56. In 174,572 cases, against 125,939 in the previous year, arrears of public demand other than land revenue were taken into court under the certificate procedure, with the result that in 4,814 cases, against 3,266 cases in the previous year, attached property was sold; in 5,025 cases warrants for arrest were issued, and in 37 cases defaulters were actually sent to jail. The number of defaulters sent to prison in the previous two years had been 58 and 41 respectively.

The revaluation of the rental, for the purposes of the road cess, is practically complete for the whole province. The gross rental of Bengal was returned for road cess purposes at Rx. 15,633,000 for the year 1895–96, as compared with Rx. 13,117,000 in 1873, showing an increase of 19 per cent. in the rental during the past 22 years. Only two districts showed any, and that a small, decrease in rental at the recent revaluations. The registration of landowners had previously been completed for the whole of Bengal; the total number of interests registered under the initial registration is 975,977, and the percentage of transfers by succession or otherwise that were registered during the year was 7·8 on the total number of interests recorded at the initial registration. The corresponding percentages in each of the two previous years was 6·7 and 6·9.

The relations between landlords and tenants are reported to have been, on the whole, "satisfactory, with occasional exceptions in particular localities." From Midnapore a case is cited where "the ryots of a landholder have "arranged to subscribe to pay off his debts, and are doing so regularly, "depositing the money with the Subdivisional Officer in his private capacity. "The proprietor is of an ancient family, and the tenants are anxious to "support him, so as not to fall under a new proprietor with modern ideas of "management." The ordinary causes of trouble are quarrels about forest rights or the cutting of trees; the illegal enhancement of rents; no-rent combinations among tenants; disputes about appraisement of produce-rents; casual acts of oppression by agents or servants of the landlords. In many cases the causes of dispute are being, or have been, abated, by the landlord claiming to have a survey and record of rights under the Tenancy Law; in some places the tenants, especially those with large holdings, are too strong for the landlords. Many landlords remitted rents in part during the late unfavourable season.

The Bengal Tenancy Act continues to work smoothly. The Act came into force at the end of 1885; and the returns of suits under the rent and tenancy laws of Bengal for recent years show:—

1891	- - - -	204,250 total suits instituted under the Rent and Tenancy Law.
1892	- - - -	208,505 " " "
1893	- - - -	219,157 " " "
1894	- - - -	238,399 " " "
1895	- - - -	237,308 " " "
1896	- - - -	248,902 " " "

North-West Provinces and Oudh.

The latest report on land revenue affairs in the North-West Provinces and Oudh pertains to the year ending 30th September 1896. The total area of crops was 40,136,000 acres, as compared with 42,364,000 acres in 1894–95; the decrease of 2,227,000 acres, or 5 per cent., was due to the unfavourable character of the season. The rainfall was 28 per cent. below the average, and the rains ceased unusually early. The autumn crops were short all round especially rice and millets. The spring crops were also inferior on the unirrigated lands. The failure of the subsequent year was so general as to cause extensive and serious distress, and to necessitate relief measures over a great part of the provinces. Prices of food were exceptionally high, and the pressure was not, as in the two previous years, relieved by importations from the Punjab, where the harvests were also short. The irrigated area was 8,533,000 acres, or 42 per cent. more than in 1894–95; the increase was due to the dryness of the season; of the total, 4,426,000 acres were irrigated from wells. The year was marked by general unhealthiness. Mortality from rinderpest and other epizootic diseases of cattle was less than in the previous year.

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The gross collections of land revenue in the North-West Provinces and Oudh under all heads were Rx. 7,443,000, as compared with Rx. 7,290,000. in the previous year; the increase was mainly under the head of canal rate on occupiers and owners; there was a decrease of Rx. 156,000 in the receipt of land revenue proper. The increased demand for canal water was due to the scantiness of the rainfall in the previous year. The uncollected balances at the end of the year amounted to Rx. 361,000, or 5 per cent. of the demand; these large balances were due to the calamities of the season. The total number of coercive processes of all kinds was 63,222, against a total of 64,523 during the preceding year; attachments of property for arrears were 12,018 as compared with 10,195, and the number of sales of defaulters' property was 713, against 664 in the previous year.

The number of suits and applications under the rent law in the North-West Provinces was 238,122, or 7 per cent. below the total of 1894–95. Of the suits more than 91 per cent. were for arrears of rent. The number of notices of ejectment brought against privileged tenants was 24,896, or 25 per cent. more than in the previous year, and in 9,730 cases ejectment was affected; the area affected by the ejectments was 61,561 acres, or 11 per cent. larger than in the previous year. Against tenants-at-will 47,792 notices of ejectment, or 18 per cent. fewer than in 1894–95 were filed, affecting 240,000 acres. The number of notices of relinquishment filed by tenants in the North-West Provinces rose from 30,484 to 42,801; and the number of applications by distraining landlords for sale of tenants' property rose from 38,654 to 40,559.

In Oudh the number of suits under the rent law rose from 33,909 to 35,351. Of the suits, 80 per cent. were for arrears of rent, and 38 per cent. of all suits were contested. Notices or applications for ejectment of tenants of all kinds fell from 13,647 cases, affecting 103,698 acres, to 13,462 cases, affecting 118,852 acres. Tenants were actually ejected from 7,974 holdings, with an aggregate area of 60,235 acres. The applications for ejectment of statutory tenants in Oudh fell from 4,305 to 4,169, and ejectment took place from 2,602 holdings, covering 9,383 acres.

The number of loans granted under the Land Improvement Loans Act of 1883 increased from 463 to 1,916, of which 790, for Rx. 12,730, were to landlords, and 1,096, for Rx. 1,840 were to tenants; under the Agriculturists Loans Act, Rx. 63,767 were advanced during the year, against Rx. 67,728 in the previous year; these advances were larger than in any former year. The outstanding amounts under both Acts, at the end of the year, were Rx. 135,360; and instalments for principal and interest, falling due during the year, amounted to Rx. 58,810, of which 62 per cent. was collected.

Punjab.

The latest Punjab land revenue report and statistics are for the year ending on the 30th September 1896. The autumn rains were light and ceased early; and the cold weather storms were unusually scanty. The crops of the province were considerably below the average, and the breadth under the more important cereals showed a falling off compared with the previous year. The total area of crops harvested was 17 million acres, as against 21¾ million acres in the preceding year, and 22¾ millions in 1893–94. The area of "Current fallows" in which are included the lands on which crops failed to mature, rose to 9¾ million acres, as compared with 3⅔ millions and 5¼ millions in the two previous years. The irrigated area rose from 6¾ to over 7¾ million acres, and covered 46 per cent. of the cropped area. The exports of wheat fell to 137,000 tons against 527,000 tons in the preceding year and 282,000 tons on the average of the previous eight years. There was, in 1896, a general rise in the ruling prices of almost all agricultural produce, especially of food grains; wheat, barley, and millet all rose more than 35 per cent. in price over the ruling rates of 1895. Food crops of all sorts covered 91 per cent. of the total crop area, but the breadth of food crops was 5 million acres, or one-fourth less than in 1895.

The regular land revenue collections on account of the year were 1½ per cent. below the collections of the previous year, or Rx. 2,136,000 in all. The uncollected balances at the end of the year were Rx. 95,000, as against Rx. 49,000 in the previous year; the increased balances were due to the adverse season. The number of writs and warrants issued against defaulters

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fell from 44,272 to 41,724, of which latter figure nearly one-third were warrants.

The number of suits for enhancement of rent had fallen from 3,788 in 1892–93 to 1,255 in 1893–94, and to 686 in the year 1894–95, but rose to 870 in the year 1895–96; landlords were successful in 86 per cent. of these suits. The number of decrees passed for ejectment of occupancy tenants was 15, and 7,440 decrees of ejectment were issued against tenants-at-will, compared with 6,308 in the previous year. Nearly 51 per cent. of the total cultivated area of the province is tilled by proprietors, and about 49 per cent. by tenants. Of the land held by tenants 79⅔ per cent. was in the hands of tenants-at-will, and 20⅓ per cent. was tilled by tenants with occupancy-right. Tenancies-at-will increased, and tenancies with occupancy-right slightly decreased as in previous years. Cash rents range from five annas in a rainless tract of the Derajat up to 40 rupees per acre on the very best irrigated land, and they average 3⅛ rupees per acre for the whole province; the average rate of rent for the whole province has risen 7 per cent. in the past four years. On 66 per cent. of the area held by tenants-at-will, the rent is still paid, wholly or partly, in kind; and the average rent payable in kind is for the whole province 40 per cent. of the produce. The excess of area mortgaged, over area redeemed in the year, was 195,000 acres, or less than in any year except 1891, during the last nine years. The area under mortgage at the end of the year was 4,773,000 acres, or 8⅓ per cent. of the total of proprietary lands; the area mortgaged and sold has decreased during recent years, while the area redeemed from mortgage has increased. The average price realised for land sold during the year is returned at 59 rupees per acre, for a total area of 351,000 acres sold; in 1893–94 the figures were 64 rupees per acre, and 320,000 acres.

Burma.

The rainfall of 1896 in Lower Burma was sufficient and evenly distributed; the rice-crop, which covers nine-tenths of all the cultivated land in Lower Burma, was above the average. In Upper Burma, for the most part, the rainfall was below the average and unseasonable; in the dry zone it was very short, and the crops failed in parts of four districts. The price of the paddy (rice in husk) at the sea-ports was high, ranging from 85 to 115 rupees per 100 bushels; these high rates were due to the demand caused by famine in India. In Lower Burma the cultivated and assessed area increased by 222,000 acres, or nearly 4 per cent. during the year. The land revenue increased by Rx. 45,000, or 4½ per cent., in Lower Burma; and decreased by Rx. 70,000, or 11 per cent., in Upper Burma in consequence of drought and bad harvests over large areas. In the preceding year the land revenue of Upper Burma has shown a decrease of 10 per cent. from the same cause, the decrease has thus been 20 per cent. in two years. The fishery and capitation revenue in the lower province also showed a considerable increase. The increased revenues in Lower Burma were attributed to the enhanced prices of rice, caused by the unusual demand for India and Upper Burma. The revenue was realised, for the most part, punctually in the lower province; but there was much delay and very large remissions had to be given in the drought-stricken tracts of Upper Burma. The effect of the famine and drought in India and in Upper Burma on the rice trade of Lower Burma may be gathered from the following figures. The total rice exports from Lower Burma in the calendar year 1897, amounted to 1,687,000 tons, as compared with 1,381,000 tons in preceding year. Of the total more than three-quarters went from Rangoon :—

———	1896.	1897.
Rice exported from Rangoon—	Tons.	Tons.
To Europe - - - - -	405,000	388,000
„ India - - - - -	76,000	542,000
„ Straits and China - - -	285,000	139,000
„ America - - - - -	100,000	110,000
„ Upper Burma - - - -	119,000	119,000
	985,000	1,298,000

The extra exports to India would in ordinary years have gone abroad, and would have paid Rx. 300,000 as export duty.

LAND REVENUE. Central Provinces.

The latest land revenue report from the Central Provinces is for the year ending in September 1896. The monsoon of 1895 ceased early in September, and hardly any showers fell in the cold weather. The millet and cotton crops were fairly good. The rice and wheat crops were very poor; while the chief spring crops—wheat and linseed—gave less than half an average yield. The failure was worst in the northern and eastern districts, where the crops had been very short in the previous year; and the bad harvests of 1895–96 were followed by worse harvests and famine in 1896–97. Prices of field produce did not range really high, until the failure of the rains in 1896. Throughout 1895–96 the average price of food staples ranged about 20 per cent. above the normal rates. There was no appreciable shrinkage in the cultivated area; the largest decrease was in the Jubbulpore district, where the cultivated area fell off by 24,000 acres, or 2 per cent.

The ordinary land revenue demand showed an increase of Rx. 22,000, or 3½ per cent., due to resettlements of revenue. Of the total, current and arrear, demand of Rx. 930,000, Rx. 791,000 were collected, leaving an uncollected balance of Rx. 139,000, or 15 per cent. The short collections were due to the failures of crop in several districts. There was a decrease in the number of coercive processes for realisation of arrears, and the total number was 12,216, against 13,196 in the previous year. As many as 966 defaulters were arrested, and 10 were sent to jail during the year; no land was sold for arrears, and the sales of moveable property for default were 276, as compared with 368 in the previous year. There was a decrease in the area of land transferred by sale or mortgage; the total area of such transfers was 528,000 acres, as compared with 605,000 acres in the previous year. Litigation under the Tenancy and Rent Law increased. Suits for arrears of rent rose from 13,020 in the preceding year to 16,049, of which 17 per cent. went in favour of the defendant. The number of suits for ejectment of tenants rose from 468 to 831. Out of a total occupied area of 20 millions of acres, five millions, or about 25 per cent., are held by tenants-at-will, the remaining 75 per cent. being cultivated by proprietors and privileged tenants; while the average rent paid by ryots of all classes, holding 16 million acres, was 12½ annas per acre.

Assam.

In the Assam Valley, the rainfall of 1896–97 was below the average over the whole province; the spring crop was fair, but the rice harvests were short everywhere. The tea crop was short in Assam, but fair in the Surma Valley. The price of food was generally high, owing chiefly to the dearth in Bengal and other parts of India. In a previous Statement was given an account of the resettlement of revenue rates in the Assam Valley, with a resulting increase of 25 per cent. in the Government demand. The rates previously in force had remained unaltered from 1867 to 1894. The demand for the year 1896–97 came to Rx. 551,000, or ¾ per cent. above that of the preceding year, of which 96 per cent. was realised during the year. The uncollected arrears at the end of the year were Rx. 24,600, or slightly less than in the previous year.

The remissions made during the year came to Rx. 406, as compared with Rx. 855 remitted in the year 1895–96. The miscellaneous land revenue receipts showed a small increase of ½ per cent. over the total of last year, and amounted to Rx. 45,600.

Madras.

In the Madras Presidency the season was unfavourable to agriculture during the year 1896–97 on the east coast, in the Deccan, and in two other districts. The average rainfall of the year was 6 per cent. above the normal rate, and 4 per cent. below the total of the previous year; but the rainfall was badly distributed, and caused drought or failure of crops in many districts. The total area under crop was 26½ millions of acres, as compared with nearly 28 millions in the preceding year. In the districts affected by drought the out-turn of the crops was "generally very poor." Prices of food ranged considerably dearer than in the previous year; the three millets, which are the principal food of the poor, rose 20 per cent.

The collections of ordinary land revenue in Madras were Rx. 5,017,000, as compared with Rx. 5,327,000 in the preceding year 1895–96. The decrease was due to the drought. Remissions and suspensions of revenue amounted to Rx. 422,000, as against Rx. 91,400 in the previous year. The uncollected revenue at the end of the year was Rx. 97,800, or 1½ per cent. of the whole demand, as compared with 2 per cent. in the preceding year. The number of notices of

LAND REVENUE. demand issued to defaulters was much larger than usual; but there was a decrease in the number of subsequent processes which imply real coercion. The total extent of land sold for arrears of revenue fell from 27,899 to 27,728 acres; and 10,512 acres were bought in at these sales by the Government.

Bombay. The season of 1896–97 was unfavourable in the Bombay Presidency, except in Sind, where the inundations were good and early; the rainfall in several districts was untimely and insufficient; the deficiency of rain was most serious in Bijapur, 11 inches against an average of 27, and in Sholapur, 18 inches against a normal average of 33 inches. The crops were fairly good in Sind, and were below average elsewhere, especially in the Deccan district. Prices of food grains rose in most districts. The collections on account of land revenue were Rx. 4,377,000, being Rx. 500,000, or 12 per cent., less than in the preceding year. The number of distraints for arrears was returned at 1,441, compared with 537 in the previous year.

Berar. The rainfall of 1896-97 in Berar was slightly above that of the preceding year, but was still 29 per cent. below the average; the short rainfall and the absolute cessation of rain after August, was very unfavourable to the autumn harvest, and caused an almost complete failure of the spring crops. Prices of food were much dearer than they had been for many years. The year was an unhealthy one. The total area under crop was 6,252,000 acres, or 368,000 acres less than in 1895–96.

The collections on account of land revenue and local rates of the year were Rx. 725,427, against Rx. 716,324 in the previous year. The number of coercive processes issued against defaulters showed an increase, there having issued 14,380 writs of demand, against 13,605 in the previous year. In 43 cases personal property was sold for arrears; 209 fields were also sold; no defaulters were sent to prison. The area of land transferred by private sale was 183,000 acres, or 35 per cent. above the total of the previous year; the area transferred is small, as compared with the total of 7,694,000 acres under occupation; the large increase over the previous year was due to the difficulties caused by the drought and failure of crops. The number of boundary marks found to be out of repair on cultivated land was 104,000, of which all except 17,000 were repaired by the close of the year.

WARDS' ESTATES.

WARDS ESTATES. In most of the larger provinces a Court of Wards has been established, which undertakes the management of estates belonging to minors, idiots, or other persons declared incapable of managing their own affairs. The position and powers of the Court of Wards are prescribed by law; and recent enactments have enabled indebted proprietors to place their estates voluntarily under the Court of Wards. The duty of the Court is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way. During the year 1896–97 the number of estates managed by Courts of Wards in different parts of British India was 1,199, with a total annual income of Rx. 2,210,000. The period for which an estate remains under the Court of Wards is generally from 10 to 12 years.

Bengal. In Bengal, 73 wards' estates and 73 attached estates, or six more than in the preceding year, were under the management of the Court of Wards, with a total rental of Rx. 959,806; the collections on account of the current rental came to 62 per cent. on the demand, as compared with 97·0 per cent. in the preceding year. The decrease was due to the drought and calamities of the season. The cost of management was 8·1 per cent. on the current rental demand, or about the same as in the preceding year. There was spent on schools, dispensaries, and improvement and maintenance of estates, a sum of Rx. 77,809. Debts to the amount of Rx. 65,000 were paid off during the year, and the outstanding debts due from all wards' estates were Rx. 375,000 at the close of the year. Surveys and record of rights were being prosecuted over 1,103 square miles, situated in parts of six different estates, and were completed on three of those estates; the expenditure on this work during the year was

Rx. 11,300. The cash balances at credit of wards' estates were Rx. 215,800 on the 31st March 1897, and the investments in Government securities were valued at Rx. 374,000. Fifteen estates were taken over, and 18 released by the Court of Wards during the year. WARDS' ESTATES.

For the 18 estates released during the year the net results of the Court's management were as follows: During the period of the Court's administration the gross yearly rental decreased from Rx. 31,000 to Rx. 26,200, owing to the sale of parts of the Deo estate for liquidation of debts amounting to 19 times the gross rental; the outstanding debts have been reduced from Rx. 304,000 to Rx. 12,200; Rx. 8,200 have been spent on improvements; investments have been increased from Rx. 2,000 to Rx. 17,000; schools and hospitals serving the estates have been helped and wards have been educated.

The number of estates under the Court of Wards in the North-Western Provinces and Oudh was 179, with a yearly rental of Rx. 605,000, and a total annual income of Rx. 609,000. Thirty fresh estates were made over to the Court of Wards; 11 estates were restored to their proprietors during the year; some of these were very small properties; on eight all debts had been paid off and on some a substantial balance had accrued to the proprietor. The land revenue and local rates due upon all the wards' estates came to 42 per cent. upon the gross rental, or Rx. 252,000 in all. Rx. 4,800 were spent on the education and training of the wards, and, as far as possible, of their brothers and sisters. Against the estates under the Court there had been debts amounting to Rx. 2,114,000, which were reduced by September 1896 to Rx. 734,000. In some few cases, where the debts were very heavy, part of the estate had to be sold in order to secure solvency. The cost of management averaged 9 per cent. on the total receipts; and Rx. 35,500 were spent on works of improvement and advances to tenants for similar works. Of the year's rental, 85 per cent. was collected; Rx. 35,900 were expended in paying off debt; while Rx. 216,000 were invested in public securities, or on mortgage, or in loans to other Wards, or in the purchase of lands and houses. The number of notices for ejectment of ryots fell from 351 to 283, of which 94 per cent. went against the tenants. There were only 24 suits for enhancement, the rent being raised, on the average of these cases, from $3\frac{1}{4}$ to $3\frac{7}{8}$ rupees per acre. North-Western Provinces and Oudh.

At the end of September 1895 sixty-five estates were under the management of the Punjab Court of Wards. Seven fresh estates came under the jurisdiction of the Court, and seven estates were surrendered to their owners during the year. Of these estates, 48 belonged to minors or idiots, three to persons declared by the Government to be incapable of managing their estates, 11 to persons who applied to have themselves declared unfit to manage their property, and eight were managed under other laws. Only three of these estates have an income of over Rx. 5,000 a year. In 1895–96 the total income of the wards was Rx. 88,800; and the expenditure, including repayments of debt, was Rx. 64,000. The cost of management was $10\frac{3}{4}$ per cent., against $7\frac{1}{2}$ per cent. in the previous year, on the total income of the estates. Rx. 10,700 were spent on paying off debts; the debts of all the wards, which had been Rx. 190,000, were reduced to Rx. 69,000 by the end of the year. Investments made in behalf of wards during 1895–96 amounted to Rx. 13,900. The expenditure on works of improvement was Rx. 7,700; on the personal expenses and education of wards, Rx. 17,700; and on the payment of land revenue and local rates, Rx. 15,400, or 16 per cent. on the total income. Punjab.

In the Central Provinces the Court of Wards relinquished the management of six estates, with a rental of Rx. 7,700, and received charge of 25 estates. At the end of the year 139 estates, with a gross income of Rx. 120,000, were under management. Out of the 25 estates newly undertaken, management was in 17 cases assumed at the request of indebted proprietors who have been declared, at their own wish, incapable of managing their own property; eight were taken over because the proprietors were minors. Of the relinquished estates three were restored on the proprietors coming of age, and three on the liquidation of all debts. The Court of Wards collected only 58 per cent. of the rental of the year; the large arrears in the northern districts were due to lenient collections in consequence of the failure of crops; in the previous Central Provinces. [Report for the year has not been received, so the paragraph in the last Statement is reproduced.]

WARDS' ESTATES. two years the collections had been 93 and 79 per cent of the demand. Of the debts due by embarrassed estates Rx. 9,400 were paid off during the year, and Rx. 126,900 were still due at the end of the year. Sixty per cent. of the wards' estates are still encumbered with debt. About Rx. 22,000 were spent on the permanent improvement of, and in advances to ryots in, solvent estates; and Rx. 1,200 were invested in Government securities or in land. Except in Chatisgarh the seasons were bad, especially in the north, and most wards' estates suffered.

Madras. The Court of Wards in Madras during the year 1896–97, handed seven estates back to their proprietors, and took charge of five estates; there were thus 45 estates under the Court at the end of the year, as compared with 47 at the beginning. The season was unfavourable on most of the estates; 700,000 acres, or 90 per cent. of the total area of all holdings on these estates was cultivated, as compared with 94 per cent. in the previous year. The total rent collections of the current year amounted to Rx. 221,000, or 70 per cent. on the current demand; the overdue balance was 19 per cent. against 9 per cent. in the previous year. The cost of management and of State assistance came to 13½ per cent. on the total receipts of the year, which amounted to Rx. 352,000, besides the opening balance of Rx. 131,000. The balance at the credit of all estates, invested and uninvested, at the end of the year was Rx. 574,000. The debts due by 20 estates at the end of the year were Rx. 122,000, debts amounting to Rx. 131,400 having been paid off during the year. The expenditure on works of irrigation and other improvements was Rx. 21,100. The progress in education of the 53 wards, 45 male and 8 female, was said to have been satisfactory, save in the case of six lads. One of the older minors was being instructed in revenue law, in commercial business, and in the management of estates.

In Bombay the estates under the Court of Wards or under Government management were of several kinds, namely:—

	No.
(1.) Estates under the Court of Wards, outside Guzerat - - - - - - - -	92
(2.) Encumbered estates in Guzerat, &c., managed under Acts of 1862, 1881, and 1884, and under the Civil Procedure Code; and talukdari villages - - - - -	537
(3.) Encumbered estates in Sind - - - -	5

Outside Guzerat most of the estates were of small area.

The estates of the second category are all in Guzerat, and are under the care of a special revenue officer. The total collections of these Guzerat estates, and of certain other estates under the same management, were Rx. 73,000, Payments to creditors were Rx. 10,900; Rx. 20,700 were paid as Government land revenue; maintenance of the owners and their families cost Rx. 16,600; and Rx. 10,100 was the amount of uncollected balance at the close of the year. Each minor talukdar was receiving education at school. On five encumbered estates in Sind, out of a total income of Rx. 5,600, debts were paid off to the amount of Rx. 1,830; and debts amounting to Rx. 25 were due, in only one district, at the end of the year.

Burma, &c. There were no wards' estates under the management of public officers in—

Burma,
Assam,
Berar,
Ajmere,

during the year.

VIII.

FORESTS.

THE subjoined tables give the forest receipts, expenditure, and net revenue for each province during the year 1896–97 :— FORESTS.

	Bengal.	North Western Provinces and Oudh.	Punjab.	Lower Burma.	Upper Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
REVENUE.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Receipts - - - - - - -	137,085	144,482	110,772	381,827	256,068	77,332	43,644	49,055	230,333	303,271	1,733,869
EXPENDITURE.											
General direction - - - - -	—	—	—	—	—	—	—	7,671	—	—	7,671
Conservancy and Works - - -	40,345	50,997	41,096	105,777	22,552	42,493	10,790	35,568	78,251	97,656	525,531
Establishments, &c. - - - -	28,659	39,637	31,234	44,552	40,001	52,606	17,405	18,593	75,179	99,260	447,126
Charges in England - - - -	—	—	—	—	—	—	—	13,627	—	—	13,627
TOTAL Expenditure - - -	69,004	90,634	72,330	150,239	62,553	95,099	28,201	61,832	153,430	196,916	980,328
Net Revenue or Forest Surplus, 1896-97 - -	68,081	53,848	38,442	231,498	193,515	— 17,767	15,443	— 26,404	76,903	116,355	39,874
Net Surplus of the previous Year, 1895-96 - -	45,244	65,848	33,608	205,681	170,542	4,460	13,889	— 13,273	66,496	157,828	749,343

General.

Some beginning was made in the forest administration and conservancy of Southern India in 1844; 10 or 12 years later similar work was begun in Western and Northern India, and was taken up systematically all over India when the Mutiny troubles were over. Within the last 20 years forest laws have been enacted for, and forest administration has been placed upon a permanent basis in, every province of India. The superior officers of the forest service have been, for the most part, selected by competition, and have been trained in forestry, either in Germany, or in France, or at Cooper's Hill College. During the year 1893–94 it was decided that 20 per cent. of the 210 superior posts in the Forest Department should eventually be filled by selected officers, chiefly Natives of India, from the subordinate or provincial branch of the Department. Some of the subordinate officials are trained at a forest school near Dehra, in the sub-Himalayan country of the North-Western Provinces, and this system of professional training at local centres will be gradually extended. The first object of the forest administration is to select, acquire, and mark off as reserves an area of State forest in every province sufficient to supply the wants of the neighbourhood and the province in respect of timber, firewood, bamboos, canes, and other forest produce, and sufficient also for supplying the foreign demand for such articles as teak timber, sandal wood, and rubber. The reserves are, or will be, surveyed, conserved, and worked on sanctioned plans, designed so as to obtain the largest possible permanent yield in the most economical way. Private rights in the reserves are bought out or compromised. Among the most important measures of conservancy are the exclusion of the yearly fires which used to devastate forests, the maintenance of adequate seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of nearly 80,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves are about 35,000 square miles of State forests, some part of which will be eventually brought within the reserve area, and all of which are managed and worked for the benefit of the people, of their cattle, and of the public revenue. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and as yet few private, and no communal, forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be

FORESTS.

reserved trees, and can only be felled under special license. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use, free of charge; inside the reserves, only persons specially licensed are allowed to extract timber or other produce on payment of fees. Forest revenue is raised by royalties on, or by the sale of, timber or other produce, and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and other minor forest produce. In the year 1896-97 the gross forest revenue of British India was Rx. 1,734,000; the expenditure was Rx. 980,000; and the net forest revenue was Rx. 740,000, as compared with Rx. 749,000 in the previous year. Some of the better-managed Native States, such as Mysore, Travancore, and Baroda have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue; Kashmir is now adopting the same policy. Mysore has more than trebled its forest revenue since the country was restored to the Native Rule, in the year 1881.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure, being compiled from administrative returns for the year ending June 1896, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts for the year in March 1896.

Bengal.

In Bengal, at the end of the year, the areas of reserved and protected forests were 5,876 and 3,378 square miles, against 5,877 and 3,437 square miles respectively in the previous year. No forest surveys were made during the year; regular working plans were completed for 407 square miles of reserves; while working plans have up to date been framed for 2,940 square miles out of the forest area. The protection of forests from fire was, by reason of a favourable season, fairly successful; attempt was made to exclude fire from 1,957 square miles, and the effort succeeded over 97 per cent. of that area, as compared with 70 per cent. and 99 per cent. in the two previous years. The area of plantations reached 4,769 acres by the end of the year, situated mostly in the Darjeeling district. There was a decrease in the yield of timber, compared with the preceding year, from $5\frac{1}{2}$ million to $5\frac{1}{3}$ million cubic feet; a decrease in the yield of fuel from $32\frac{1}{2}$ to $30\frac{1}{4}$ million cubic feet; and a decrease in the yield of bamboos from $20\frac{3}{4}$ millions to $18\frac{1}{4}$ millions. The gross and the net forest revenues were Rx. 137,085 and Rx. 68,081, a large advance on the previous year, when the net surplus was Rx. 45,264; the chief item of increase was on account of timber sleepers sold. Both gross receipts and surplus were the largest ever attained by the Bengal Forest Department. The Sunderbuns forests yielded Rx. 50,100 out of the gross revenues.

North-West Provinces and Oudh.

The forests of the North-West Provinces and Oudh are divided into three "circles," and the forest reserves cover an area of 3,822 square miles, or 56 square miles more than the area of the previous year; there are also 9,319 square miles of protected forests. Surveys have now been completed for all the reserves except 76 square miles; and working plans are in force in all reserves except 619 square miles. But in many places the old working plans are coming under revision, so the business connected with framing these plans will continue to require attention. The area over which attempts were made to exclude fires was 3,012 square miles; and fires occurred over 91 square miles, or 3 per cent. of the protected area. The number of forest offences that were compounded was 481, and 297 persons were prosecuted, of whom 213 were convicted. The total yield of the forests during the year was returned at 4,113,000 cubic feet of timber and 6,585,000 cubic feet of firewood; the out-turn of timber was 35 per cent. above, and of firewood was 22 per cent. below the yield of the preceding year. This is the second year running in which the consumption of firewood from Government forests has decreased by more than 20 per cent. The minor produce yield was returned at Rx. 33,000 worth of grass, bamboos, &c. The total forest revenue of the year was Rx. 138,000. The forest surplus of the year was Rx. 51,000, as compared with Rx. 69,500 in 1894-95, and Rx. 53,500 in 1895–96.

Panjab.

At the end of 1896–97 the reserved forest area of the Panjab was 1,681 square miles, besides 4,354 square miles of protected and unclassed forests. The survey of the reserved Himalayan and other forests was continued during the year, and 571 square miles in all were surveyed. Regular working plans for

two Himalayan forests were sanctioned; the old working plan for the Changa-Manga forest was revised; and working plans for six more forests were in different stages of preparation. Forest fires were few owing to the sparse crop of grass and to the fact that villagers abstained from burning the grass, which was in great demand for cattle in a year of drought; 146 fires were reported, against 524 in the year 1895–96; the area actually burnt was 14,000 acres, or 0·3 per cent. of the total forest area, as compared with 118,000 acres in the previous year. By reason of the drought, natural reproduction was poor in all forests. There was a decrease in the number of reported offences against the forest laws; the cases taken into court were 1,017, in 78 per cent. of which convictions were obtained. The total yield of the forests for the year was returned at 2,320,000 cubic feet of timber and 29,209,000 cubic feet of firewood, or 20 per cent. more timber, and 2 per cent. less firewood than in 1895–96; 25¾ millions of cubic feet were removed by free-grantees and right-holders without charge, 3¼ millions were worked out by Government agency, and 2½ millions by purchasers. FORESTS.

The total forest revenue of the year was Rx. 107,000, against an outlay of Rx. 75,000, yielding a surplus of Rx. 32,000, as compared with Rx. 34,000 in each of the two previous years.

An area of 128 square miles was struck out of the reserved forests of Lower Burma, while 1,391 square miles were added to the reserves in Upper Burma. The total reserve area at the end of the year was 14,058 square miles. Over 843 square miles of the reserves the privilege of cultivating hill gardens has been secured for the forest tribes. In Upper Burma there are still large areas of protected forests, out of which further reserves are being selected. BURMA.

In Lower Burma detailed valuation surveys were completed over 981 square miles of forest; while regular working plans were sanctioned for three forests in Lower Burma and one forest in Upper Burma during the year. In Upper Burma 171 square miles regular forest survey were accomplished during the year. In Lower Burma fire protection was attempted over 1,056 square miles of deciduous forest, and fire was excluded from 93 per cent. of that area, as compared with 90 per cent., in the preceding year. In the Upper Burma teak forests, where the rainfall is often less than in Lower Burma, efforts for the exclusion of fires were again very unsuccessful; from 324 square miles fire was excluded, as compared with 800 square miles over which protection was attempted, and with 407 square miles successfully protected in 1895–96. In Lower Burma the plantations, chiefly teak, now cover about 63 square miles, 5,793 acres having been added during the year. The plantations in Upper Burma cover, as yet, only 1,108 acres, which consists of cutch-bearing acacias. The teak worked out of the forests was 264,000 tons, showing a large increase in Upper and a small increase in Lower Burma, while the output of other timbers also increased. The forest revenue and forest surplus since the acquisition of Upper Burma, have stood thus:—

		Gross Forest Revenue.	Forest Surplus of Revenue over Expenditure.
		Rx.	Rx.
TOTAL for Upper and Lower Burma	1887-88	251,576	136,191
	1890-91	432,196	298,353
	1894-95	559,589	373,139
	1895-96	559,038	373,138
	1896-97	637,894	424,400

The arrivals of teak by the Salween river at Moulmein were 84,478 tons, or 25,537 more than in the previous year; the arrivals at Rangoon by the Irrawaddy and Sittang rivers were 159,048 logs, or 38,002 more than in 1895–96. The export of teak from Burma by sea was 191,152 tons, as compared with 204,857 and 191,266 tons in the two preceding years. The average value of the teak exports was Rx. 8⅓ per ton, as compared with Rx. 7½ in the two previous years.

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FORESTS.

Central Provinces.

The area of reserved forest in the Central Provinces was 19,258 square miles, of which 12,606 square miles were at the end of the year 1896–97 classed as A. or permanent reserves, and 6,652 square miles were classed as B. reserves. The B. reserves are available either for eventual transfer to the A. class, or for possible extensions of cultivation in future years. An area of 12 square miles was disforested and made available for cultivation during the year. The demarcation of reserves is nearly finished, and the boundary registers are now complete for the forest reserves except in three districts, where 160 miles of boundary have yet to be demarcated. Surveys preparatory to the formation of working plans have been completed in three districts, and were nearly complete in seven more districts, but a great deal of forest survey has still to be done in the districts of Chanda and Mandla. Complete working plans had been completed for 9,517 square miles, and were in hand for 3,157 square miles of forest. The total number of reported forest offences rose to 4,780. Out of the reported offences against forest laws 4,243 were compounded under sanction of competent officers, and in 333 cases prosecutions were undertaken. Fire was excluded from 96 per cent., as compared with 93 per cent. in the previous year, of the 7,182 square miles over which fire protection was attempted, at a cost of 4½ to 11½ rupees per square mile. No regular plantation work is attempted in the Central Provinces. Natural reproduction of timber was poor by reason of the drought. The number of cattle grazed in the forests was 2,292,000, of which 454,000 were allowed into the forests without fee by reason of the famine. Receipts from grazing dues show a decrease as compared with the previous year. The forest revenue was adversely affected by the drought and famine. The forest revenue of the year was Rx. 76,200, against an expenditure of Rx. 86,400, leaving a deficit of Rx. 10,200, the first deficit that ever resulted from the administration of the forests of the Central Provinces. The year was altogether exceptional on account of the famine; very many lives of men and of animals were saved by opening the forests to grazing and to mhowa flower pickers.

Assam.

The reserved forests in Assam were reduced by four square miles, bringing the total area to 3,681 square miles; besides about 11,200 square miles of unclassed State forests. Forest survey was accomplished of only two square miles during the year; preliminary and permanent working plans were generally observed, save that, by reason of the slackness of the trade demand, fellings of timber did not approach the prescribed total save in the Goalpara Sâl forests, where the dealers had previously resisted the requirement that they should act in accordance with a working plan. Fire protection was attempted over 1,202 square miles, and fires were actually excluded from 99½ per cent. of the protected area; the expenditure on fire protection per square mile was Rs. 7⅛, or somewhat less than in the previous year. Most of the reserves consist of evergreen forest wherein fire protection is not needed. The boundaries of reserves are mostly streams, rivers, and roads; out of 1,131 miles of artificial boundary line, 1,088 were cleared and properly maintained during the year at a cost of 2 rupees per mile. The plantations of rubber, teak, sissoo and other trees, cover 2,312 acres, of which seven acres were added during the year. Natural reproduction and growth of forest trees was on the whole satisfactory. The yield of the Assam forests shows a very large increase, the total out-turn of timber and firewood being 15,307,000 cubic feet, as compared with 6,941,000 in the preceding year; about two-fifths of the yield was under the head of "free grants." The export of rubber from Assam rose to 4,047 maunds, as compared with 2,800 maunds in 1895–96; but it was still below the totals of earlier years. The quantity of bamboos taken from the forests during the year increased from 5¼ to 24 millions. The forest revenue was Rx. 44,100, and the forest surplus was Rx. 15,900, or Rx. 4,300 more than in 1895–96, though still Rx. 6,200 short of the surplus of the year 1893–94.

Berar.

The forest area of Berar is 4,178 square miles, or 23½ per cent. of the whole area of the province, of which 1,518 are reserved for timber and fuel, 92 for fodder and thatching grass, and 2,568 for pasture. No change was made in the total forest area during the year. Surveys and working plans for 725 square miles are complete. Short term working plans for 967 square miles have been completed, and similar plans for 2,172 square miles are in hand. Fires were excluded from 1,392 square miles, or 98 per cent. of the area over which

fire protection was attempted; the cost of protection fell from 9½ to 9 rupees per square mile. Natural reproduction, though retarded by drought, was yet fairly satisfactory in over 1,400 square miles of forest from which fire and injurious grazing are excluded. The yield of timber increased from 460,000 to 773,000 cubic feet; there was a small decrease in the amount of fuel and in the output of bamboos. The gross receipts were Rx. 49,700 and the net revenue was Rx. 24,200, compared with Rx. 49,500, and Rx. 26,800, respectively, in the previous year. FORESTS.

An area of 1,196 square miles was added to the reserved forests of Madras during the year 1896–97, bringing the total area of reserves up to 13,138 square miles, besides 5,769 square miles of "reserved lands." Permanent marks were placed along 1,376 miles of new boundaries of reserves, as compared with 2,189 in the preceding year; and 1,671 miles of preliminary demarcation work were also done. Surveys of the reserves were continued by the Survey of India in the Salem, North Arcot, South Arcot, and Kurnool forests, and 1,026 square miles were completed, of which 746 square miles were in forest reserves. Further progress was made in the preparation of working plans: in parts of 11 districts either regular or preliminary working plans were formed; and in most of the other forests temporary working plans are being carried out. Fire protection was attempted over 5,363 square miles, of which 98 per cent. were successfully protected, a very much better result than in the previous year. The cost of fire protection averaged 7¼ rupees per square mile, against 7½ and 8½ rupees per square mile for the two preceding years. The year was not favourable to natural reproduction; in consequence of the drought the forests were thrown open to grazing, and they suffered in consequence. The total area of plantations was returned at 23,186 acres, of which 5,119 acres were added during the year, besides the groves and other tree cultivation. The timber plantations consist of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast. The yield of the forests according to the returns was 2,642,000 cubic feet of timber, and 12,182,000 cubic feet of fuel, besides 30¾ million bamboos and other minor produce; the timber and fuel out-turns, as well as the bamboo out-turn, were somewhat smaller than in 1895–96. The forest revenue was Rx. 219,000, against an expenditure of Rx. 159,000, leaving a surplus of Rx. 60,100, or Rx. 9,700 less than in the previous year. The decrease in the surplus was due entirely to the growth in expenditure, which exceeded the previous year's outlay by Rx. 11,900. The number of breaches of forest laws reported during the year was 11,442; 55 per cent. of the cases were compounded or withdrawn; and in 83 per cent. of the 3,358 prosecutions conviction was obtained. Madras.

The area of reserved forests in Bombay was 12,206 square miles, or 714 more than in the preceding year. The protected State forests outside the reserves were returned at 2,030 square miles, or 753 square miles less. Forest surveys were carried out over 498 square miles of reserves; in two forest circles permanent working plans were sanctioned for two forests, and were being prepared for seven more forests; while further progress was made with the demarcation of the forest into compartments for working in rotation. The number of prosecutions for forest offences was 2,314, against 2,979 in the previous year; the proportion of convictions was 74 per cent., while 3,018 offences were compounded by competent officers under the law, as compared with 4,526 cases compounded in 1895–96. Fires traversed 472 square miles, or 4½ per cent. of the 10,700 square miles of forest over which fire protection was attempted; the proportion of success was larger than in the previous year. Natural reproduction of timber was poor, or failed more or less in all forests by reason of the drought, save in Sind, where favourable inundations secured good growth. The regular plantations were not extended during the year; but the afforestation of bare hill-sides by cultural operations was continued, though without much success, owing to the drought, in parts of the Deccan and the Konkan. The total receipts of the four forest circles of Bombay were Rx. 303,200, against an expenditure of Rx. 197,000, leaving a surplus of Rx. 116,000, or Rx. 41,000 less than in the previous year. Bombay.

The area of reserved forests in Coorg was 238 square miles, as in 1895–96, besides 650 square miles of protected forests. Four square miles were Coorg.

FORESTS.

excluded from the protected forests during the year. Additions of 303 acres were made to the plantations of sandal, teak, and firewood, which now cover 3,371 acres, including 1,004 acres of sandal wood. Half of the Coorg reserves are now under regular working plans, and working plans for two more reserves were completed; while a working plan for the sandal wood forests was under preparation at the end of the year. Fire was excluded from 203½ square miles out of 204 square miles over which protection was attempted; there were only 10 forest fires during the year. The natural reproduction of trees, belonging to the more valuable species, was satisfactory during the year; but the sowings of teak and sandal suffered much from the very heavy rain of June to August 1896, which killed the seedlings. There was a large decrease in the quantity of timber removed from the forests by purchasers, and the demand for timber was poor during the year. The quantity of sandal wood extracted from the forests increased to 137 tons, as compared with 98 tons in the previous year; the cost of extraction was slightly lower. The forest receipts were Rx. 9,300 as compared with Rx. 14,500 in the previous year, and the charges were Rx. 7,200; the surplus fell from Rx. 5,000 to Rx. 2,100.

IX.

AGRICULTURE AND MINERAL RESOURCES.

AGRICULTURE. In every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture, and for the improvement of stock. The Agricultural Departments also keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract.

Bengal. The rainfall of 1896–97 in Bengal was from 20 to 30 per cent. below the average throughout the province, except in Orissa, where it was abundant. The drought was most severe in North Behar. The rainfall ceased unusually early. All harvests were short; the yield of the early autumn crops was 35 per cent. below the average, of the winter rice (covering 30 million acres), 55 per cent. below the average, and of the spring crops 33 per cent. below the average. The prices of staple food grains rose everywhere, and reached famine rates over a large part of Bengal.

Calcutta Botanical Gardens. At the Calcutta Botanical Gardens the season of 1896–97 was very unfavourable; the failure of the rains proved fatal to a number of plants which had been weakened by the previous year's drought. The conservatories, which depend on tank water, suffered especially. Experimental cultivation of various kinds of mustard enabled the Assistant Superintendent to complete observations on the growth and economic value of the different species. The herbarium received 13,989 specimens of plants from provinces of India and from other parts of the world. A collection of Thibetan plants from Paris and a collection of South Indian plants, amassed 50 years ago by a Swiss botanist, from Fribourg, were among the most interesting contributions. Specimens were, as usual, sent from the gardens to kindred institutions in many parts of the world. The volumes of the garden annuals issued during the year contained, among other papers, a valuable account by Mr. Gamble of every species of bamboo found in any part of India, with a summary of its uses and a lithograph of each species.

Agricultural experiments. At the experimental farms on the Burdwan and Doomraon estates, and at the Sibpore Government farm, experiments were continued with different kinds of manure, with selected and imported seed, and with different methods of cultivation. On the Sibpur farm, 143 different varieties of rape and mustard, and 44 varieties of cotton from different parts of Bengal, were grown on small plots, with a view to determining the botanical character and the economic value of each. The only valuable result from the Sibpur manure experiments of the year was the proof that crude saltpetre forms a most valuable manure for leaf-producing plants and for market gardens. Ratooned sugar canes, which had yielded a crop for five years in succession, fell off considerably in the sixth year; on the whole, there seems a probability that the variety of cane, which lends itself to ratooning, may become popular in the drier parts of the country, though its juice has a slightly saline taste and its canes tend to get harder and less easy to crush with each year of ratooning.

On the Maharaja's farm, near Burdwan, a manure of bone-meal mixed with saltpetre gave excellent results with winter rice; as the yield was 4,320 lbs. per acre of rice in the husk, and the net profit per acre was double that given by an unmanured plot alongside. The best out-turn of sugar was given by land manured with cowdung and super. The best manure for jute proved, as in the previous years, to be simple cowdung.

On the Doomraon farm simple cowdung gave the best results with wheat. The same ten varieties of wheat were grown on experimental plots, as in the

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previous year; and the local white and red varieties gave the heaviest yields (1,500 and 1,600 lbs. to to the acre), the four Central Provinces varieties gave the lowest yields (980 lbs. to 480 lbs. per acre).

The arrangements for raising silk seed, which should be free from pebrine and other diseases, were continued under the supervision of Mr. Mukherji, the Cirencester graduate, who had studied at Paris and Lyons, and in Lombardy. Ten seed rearing nurseries were established under silk growers in the silk districts. About 21,000 ounces of eggs were raised; but only about 3,200 ounces were bought by the silk rearers. The excessively dry season, which checked the mulberry bushes and prevented cocoon-rearing, is said to have been partly the reason of this small demand for selected seed.

North Western Provinces and Oudh.

On the Cawnpore experimental farm the rainfall of 1895-96 was 62 per cent. below the average, but owing to irrigation facilities the crops did not suffer, except in the case of sugar cane, which requires a moist soil. For cotton the absence of rain during October and December, and for wheat the absence of cloudy weather in February proved beneficial. The trials of manures, of deep ploughing, with wheat, maize, and other staples, were continued, under the programme that has been in force for several years, on the many plots into which the farm has been divided. Among the more notable results of the year were the following: sheep dung and poudrette gave the best yield from maize, while saltpetre manure gave the smallest yield. The best yield of maize gave 42 bushels per acre against 15 bushels from unmanured lands; the best yield of wheat gave 51 bushels per acre against 28 bushels from unmanured land. Out of different varieties of green manuring, indigo refuse gave, as in previous years, the best yield, being as high as 45 bushels of wheat in 1897 as compared with 42 bushels in 1896.

In experiments with deep and shallow ploughing, the plot ploughed with country ploughs gave a higher out-turn of wheat, though the result of similar experiments in previous years had been in favour of the improved plough. Extraordinarily good results were attained with American varieties of cotton, the yield ranging from 237 lbs. to 326 lbs. of cleaned cotton per acre at the first picking, and at a second picking similar plants yielded from 113 lbs. to 213 lbs. of cleaned cotton per acre. Canadian oats gave luxuriant crops of green fodder, but poor yields of grain. Experiments with jowar (greater millet) showed that abundant crops of green fodder could be easily produced during the hottest part of the year with irrigation; three cuttings of this fodder during 115 days yielded 19 tons of green fodder per acre. Among private experimental farms, the Meerut farm has demonstrated the manurial value of silt from a sewage drain in the neighbourhood of the farm, and this silt is now widely used by the people around. The Jatan farm, belonging to and worked by a Rajput landholder, made experiments with manures and fodders, and found one special variety of jowar (millet) to grow 13 ft. high, and to yield excellent fodder. Two other private farms have made no reports of their work.

The length of avenues planted along roadsides during the year was 205 miles, and the total length of avenues in the provinces, after careful revision in some districts, came to 8,334 miles. The year was marked by drought; relief operations engrossed the attention of local officers, and the labours of the arboricultural staff were directed to keeping the avenues alive. In 18 districts no addition whatever was made to the length of avenues. In Gorakhpur and some other districts, where considerable length of new avenue were made, the work was done mainly by the landholders.

The Seharunpore Botanical Gardens had a bad season; the rainfall was 44 per cent. below the normal fall, but it was evenly distributed until the 27th August, when the monsoon rains ended. Much premature ripening of crops occurred, but the yield of fruit and vegetables was, in some instances, fairly good. The demand for, and distribution of, seeds and plants was nearly as large as in the previous year. The cash earnings of this garden and of its branch at Mussoorie amounted to 86$\frac{1}{2}$ per cent. of their total expenditure. Experiments in acclimatising fruit and fodder plants were continued, and favourable results were obtained with the American dewberry, Japanese pear, Florida apple, Madras horse-radish tree, sisal hemp, paper mulberry, three kinds of eucalyptus, all in the Seharunpore garden, besides the

Cox orange apple and Moorpark apricot in the Mussoorie (Himalayan) garden. The sale of eucalyptus leaves for cleaning the boilers of locomotives paid the whole cost of the exotic tree plantation and nurseries at Seharunpore during the year. The men trained at Seharunpore as gardeners do not nearly suffice to meet the demand for such people. AGRICULTURE.

The number of ploughs, pumps, and other agricultural machines sold, let on hire, or otherwise distributed by the Agricultural Department, rose from 125 in 1894-95 to 212 in 1895–96. The water lifts and the flour mills invented by the native head mechanic of the Cawnpore Farm workshops are both attracting attention. The three well-sinkers, provided with boring apparatus, were hired out by landholders, and made 50 borings in six districts, all expenses being borne by the landowners; the demand for these men's services was less brisk than in the previous year, when they made 86 borings. At all the large cantonments there are now private dairies managed on scientific principles. The Aligarh dairy was worked by Mr. Keventer, the Swedish expert, who had been previously employed to establish well-managed pattern dairies at the public expense. At the agricultural school, opened at Cawnpore in 1892, twelve students completed their two years; nine passed the final examination and gained diplomas both in agriculture and in natural science. Both educational and agricultural inspecting officers report well of the school. Each student cultivated a quarter of an acre with his own hands throughout the year.

As has been stated in the Land Revenue chapter of this Statement, the rainfall of the autumn of 1896 was short in the Punjab, and there was a great shrinkage of cultivation and a heavy rise in the price of food during the latter part of 1896–97. Operations for relief of distress had to be undertaken in some districts. But the winter rain of 1896–97 was happily favourable; the spring crops were good, and saved the Punjab from the pressure of severe famine, which overtook the greater part of the North West Provinces, Oudh, and the Central Provinces. Still prices were very high in the Punjab; and for some time (April to July 1897) over 90,000 people were receiving relief from Government in the Punjab. Punjab.

The village accountant surveyors (*patwaris*) continue to improve in efficiency; their books and returns are becoming more and more correct. These results are attributed to better education, more careful supervision, and more favourable prospects of promotion. Experiments with crop out-turns continue to be made, and the quinquennial revision of the standard estimates for the yields of the various crops was to be made in the autumn of 1897. Among more important agricultural experiments of 1896 were trials of four kinds of Egyptian cotton, which yielded from 252 lbs. to 463 lbs. of cleaned cotton per acre; trials of Cape barley, which yielded an average of 36 bushels to the acre; trials of American maize, the early varieties of which proved unsuitable, while other varieties gave from 19 to 37 bushels of maize to the acre.

The triennial report on arboriculture in the Punjab shows that between 1893 and 1896 the length of roadside and canal avenues had increased from 10,424 miles to 11,286 miles. The gross cost of the avenues and plantations during the three years was Rx. 116,000, while the recipts from sale of produce were Rx. 91,000.

The rainfall of 1896 which was much below the average and ceased early, was excessive and unseasonable; and the rainy seasons were unfavourable for nearly all crops in the Central Provinces. Central Provinces.

In some districts the millet and cotton crops gave a fair yield; but the rice, wheat, gram, and linseed crops were poor everywhere. Prices rose to famine rates in the autumn of 1896, after the deficient rainfall of the summer of that year. In 13 out of the 18 districts there was severe distress; relief on a large scale had to be given from October 1896 up to December 1897.

In 12 districts, where the settlements have been concluded, the land records system is now in fair order; the circles allotted to the accountant-surveyors (*patwaris*) have been arranged; each village officer of this rank has to reside and hold an office in his circle; the inspectors (*kanungos*) have also been organised and have been made to reside within their charges. The staff of

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patwaris consists of 4,672 men, of whom 197 were dismissed or degraded within the year, while 1,301 were fined or otherwise punished for neglect of duty. Notwithstanding this heavy list of punishments, the village officers are said to be discharging their duties well, and the work of the land records staff is said to be improving. About half the total punishments pertained to two districts. The percentage of entries in the village records checked by the inspectors ranged from 9 to 20 per cent.; and a fair proportion of the entries was further checked by three successive grades of superior officers, belonging to the Land Records Establishment and to the District Revenue Staff.

Burma.

The rainfall was both sufficient and seasonable, yielding a large rice crop in Lower Burma; but was light and unfavourably distributed, causing drought and scarcity in parts of the upper province. The total area under rice was, in Lower Burma, 5,452,000 acres, which was 90 per cent. of the total area under all crops, 6,025,000 acres. The increase in the cultivated area was nearly 4½ per cent. above the figures of the previous year. The exports of rice and rice-bran by sea to places outside Burma was 1,410,000 tons, as compared with 1,467,000 tons in the year 1895-96; the bulk of the bumper crop of the winter of 1896-97 was exported after the end of March 1897. The prices of rice at seaports, in consequence of the large demand caused by the Indian famine, were favourable to Burma producers, and prices of food rose somewhat in Upper Burma.

The area of cultivated land in Lower Burma that was sold during the year was 401,000 acres, compared with 363,000 in the previous year. The total land under mortgage at the end of the year is returned at 326,000 acres, or 7 per cent. on the area under cultivation. The average price in the districts of largest transfers (Hanthawaddy and Thongwa) was 16 rupees and 15 rupees per acre. The return of areas sublet by peasant proprietors in Lower Burma was 1,112,000 acres. Rents paid by sub-tenants averaged from 3¼ rupees per acre in the lowest district to 11½ rupees per acre in the highest district. In Hanthawaddy and Thongwa, where the areas sublet were 339,000 acres and 219,000 acres respectively, the average rent rates were 8 rupees and 8¾ rupees per acre. In only one other district (Akyab) was as much as 100,000 acres held by tenants. For the whole of Lower Burma the rents paid all over the province averaged 7¾ rupees an acre as compared with an average land revenue rate of about 2 rupees an acre.

Assam.

The rainfall of Assam was deficient in most districts and the weather was unusually dry from October to December. The rice harvest was short except in Sylhet; the season was on the whole moderately favourable for tea; the yield of oil-seeds was fair. Prices of food rose generally.

Crop experiments have been carried on as in preceding years. The net result of the crop experiments of 1896–97 and previous years in Assam has been as follows:—

Rice. 56 experiments in the valley districts, yielding 1,170 lbs. (14½ maunds) of rice in the husk per acre on the average for the better qualities; and 13 maunds per acre for the poorer varieties; in ordinary years the averages are 19 and 15 maunds.

Sugar. 70 experiments, yielding on the average 2,424 lbs. (30 maunds) of *gur*, or molasses, to the acre, as compared with 17½ maunds on the average of previous years.

Oil-seeds. Rapeseed, one experiment, 412 lbs. per acre; sesamum, seven experiments, 365 lbs. per acre; mustard, 95 experiments, 503 lbs. per acre; linseed, four experiments, 503 lbs. per acre. These yields were up to the average of previous years.

Pulses of two kinds; 91 experiments, one kind (matikalai) yielding an average of 483 lbs. per acre, and the other (moong) 164 lbs. per acre; this latter yield was much below the average.

The training of village officials in surveying and the maintenance of the village records in a correct state makes good progress. During the year 127 candidates obtained certificates at the survey schools, as compared with 105 in the preceding year. The number of village revenue officers who have obtained certificates of qualification is returned at 998, as compared with 902 in the

previous year, out of 1,162 of these officials on rolls of the surveyed tracts. The testing of village maps and records by superior inspecting officers was less complete and satisfactory than in the previous year. Out of 114,328 survey marks on the ground, 100,760 were inspected, of which 65,653 were found to be in good order, and 35,107 were repaired; 3,647 marks were lost or left unvisited. AGRICULTURE.

The rainfall in Madras during 1896-97 was 6 per cent. above the normal average; the south-west monsoon ceased early, but the north-east monsoon (or latter rains) was copious. On the whole the season was favourable to agriculture, save on the west coast and in the Deccan districts, where prices were very high and distress was felt. The crop area was 4½ per cent. below that of the preceding year, and the harvests were decidedly poor in the areas above mentioned. The price of food grains rose 10 per cent. in the case of rice, and 20 per cent. in the case of millets, as compared with the previous year. Madras.

The advances to ryots for improving their lands fell to Rx, 18,000, as compared with Rx. 27,000 in 1894–95, and with Rx. 195,000 during the two previous years of partial scarcity, 1891-93. The Land Records Department maintained survey schools in 127 out of the 156 subdivisions of Madras, and 12,913 village accountants were instructed in the surveying and demarcation of fields; while 601 out of the 633 revenue inspectors in the province have also been trained to survey lands and correct land records. The provincial veterinary officer, by visiting the district stock inspectors, by attending or organising cattle fairs, and by lecturing to classes at the Agricultural College of Saidapet, carried out part of the programme of the recently-established Civil Veterinary Department. The famine relief operations interfered with the work of the agricultural experiment and inquiry. The Government dispensed with the services of six out of the 13 stock inspectors.

The rainfall in Bombay, though above the average in some districts, was altogether unseasonable; the downpour in July or the first half of August was extraordinarily heavy, more than double the average, while September and October had no rain at all. The harvests of the year were short over a great part of the Presidency. Sind had good crops by reason of the good inundations of the Indus. Prices of wheat, millets, and rice rose everywhere. The net cropped area fell off, as compared with the previous year, in all divisions except Sind. Bombay.

At the Poona demonstration farm the unfavourable season caused much modification of the original programme for the year's work; and the same cause retarded the progress of the recently extended demonstration farm at Surat. Still a good deal was done which may have permanent interest and value. The *Nilwa* variety of millet (*jowari*) was proved to be the best fodder-yielding variety for the uncertain climate of the Deccan. Both the *Nilwa* and the *Sundhia* varieties fared much better than the American millets. The *Sundhia* crop did not do well on the farm; but it, as well as the *Hundi* variety, answered well in the interior during the recent dry season. The seed had been supplied from the Poona farm; and *Hundi* millet, sown late in the year, has with irrigation yielded excellent crops both of fodder and grain in many parts of the Deccan. Guinea grass continues to be the best of the exotic fodder plants. Experience at the Poona farm more and more confirms the view that Indian staples will be improved, not by introdncing and acclimatising foreign varieties, but by a continued process of seed selection for propagation of indigenous varieties; each approved local variety should be improved in its own locality, where it has attained success, as the survival of the fittest. The experience of the Poona farm superintendent, after careful trial of Egyptian cotton in several localities, leads him to the opinion that the best local varieties of cotton are better suited to the soil and climate than the Egyptian variety, which Mr. Jamsetjee Tata is making much effort to establish in Western India. The Surat farm is to be primarily devoted to ascertaining, establishing, and improving the best local varieties of millet (*jowari*), which is the staple food grain of Guzerat. The dairy farm supplied milk and butter to the value of Rx. 1,705 during the year; the profit on the farm was largely reduced by reason of the high price of grain and food; still the income exceeded the expenditure by Rx. 88 for the year. As yet the dairy farm

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cannot claim to have produced a local breed of improved milch cattle, which was one of the main objects in view.

Government loans to cultivators for permanent improvements and the purchase of seed and cattle amounted to Rx. 366,000, or Rx. 268,000 more than those in 1895-96. The large increase in these advances was due to the drought and famine. The works on which loans were chiefly spent were irrigational and protective improvements and wells. Many advances were taken for the purchase of cattle and seed. A special staff was organised for dealing promptly with applications for advances. The Government report that the advances were generally found to have been utilised for the purposes for which they were granted, and that, in view of the unfavourable character of the year, instalments due on past loans were punctually repaid.

Berar

The rainfall of the year in Berar was 28 per cent. below normal, and the yield of staple food crops was barely half the average. Cotton, which covered last year 36 per cent. of the Berar cultivated area, gave a little more than half the yield of the previous year; linseed gave less than half, as also did millet, the chief food staple, and wheat. The prices of millet (*jowari*) and rice were double the rates of the preceding year. The total occupied area rose from 7,755,000 acres in the previous year to 7,890,000 acres. Of the latter total, 79 per cent. was under crop in 1896-97, as compared with 86½ per cent. in the year 1895-96.

HORSE BREEDING, AND VETERINARY COLLEGES.

HORSE BREEDING.

In 1891 the Civil Veterinary Department took over the management of horse-breeding operations, which were formerly under the direction of military officers. The staff of veterinary surgeons concerned with this business is distributed over the several provinces where horses and mules are bred. These officers not only supervise horse-breeding and mule-breeding, but, in conjunction with the district authorities and local boards, they organise and control operations for combating cattle disease, and help to instruct Indian students at veterinary colleges. The returns of agricultural stock are not complete for all provinces, and are altogether wanting for Bengal; but the total number of horses and ponies in British India, outside Bengal, is returned at 1,152,000, while the number of mules and donkeys is given at 1,120,000. The North-West Provinces and Oudh return 494,000 horses and ponies, and 308,000 mules and donkeys; while the Punjab returns 575,000 mules and donkeys, and 281,000 horses; the Bombay returns show 156,000 horses, and 66,000 mules and donkeys. The totals in nearly every case show some increase over the corresponding figures for the previous year. The number of stallions kept by Government for horse-breeding, at the end of the year 1896-97, was 386, or 25 more than in the previous year; 78 new stallions were bought, and 53 were struck off the register, mostly because they were old and worn out. Among the new stallions were 24 English and 13 Australian thoroughbreds and 20 Arabs. At the end of the year there were 129 Arabs, 77 Norfolk trotters, and 20 thoroughbreds. The number of donkey sires bought during the year was 69, while 51 died, or were sold, The number of stallions kept by Government for mule-breeding was 382 at the end of the year. Of the total, 194 were Italian donkeys, but these animals are very expensive; 43 donkey sires were imported during the year, and a gradually increasing number of large donkey sires is being obtained from donkey breeders in the Punjab and Baluchistan. The donkey sires imported during the year were from Spain, Italy, and Cyprus, and were of good stamp. Besides the Government stallions, 190 horse and donkey stallions were maintained by district boards, and a considerable number by Native States. The officers of the Veterinary Department give every assistance to Chiefs and to local bodies in obtaining good sires.

At the end of the year 22,603 branded mares were on the list as available for horse-breeding, and 4,906 for pony-breeding, from sires kept by Government; these numbers are below the totals of 1895-96. Of this number, 14,542 mares were covered by Government horse stallions during the year; and 4,090 foals were reported to have resulted from the coverings of the previous year, by horse and pony stallions, apart from 2,045 cases in which the results were

unknown; 8,467 coverings are known to have yielded no foals. The average number of foals thrown to each horse stallion employed in the previous year ranged from seven in Sind to 15 in Baluchistan, and in the Northern Punjab; and for all India the average was 13·1 for horses and nearly 13 for ponies. It is said, however, that the statistics are not trustworthy, and are probably below the truth. By the Government donkey stallions 17,977 horse and pony mares, besides donkey mares, were covered; and 4,085 mule foals, besides 204 donkey foals, are reported to have been born from the coverings of the previous year. The veterinary officers believe that the produce of the mares served by Government sires is greater than these figures would show. The stallions kept by district boards and local bodies covered 7,607 mares during the year; 2,137 foals are reported to have been born during the year. The average yearly cost of keeping stallions was higher than in previous years by reason of the drought and dearness of grain; it ranged from Rs. 183 to Rs. 484 for horses, and from Rs. 122 to Rs. 419 for donkey stallions, in the several provinces. Baluchistan and the Deccan are the provinces where the cost of keeping stallions is highest. The number of remounts purchased for the army at the different horse fairs was 1,906; while 2,131 mules were bought for army purposes. HORSE BREEDING.

Owing to the drought the year was very disastrous for horse fairs; and eight important fairs were not held at all. Twenty-nine horse fairs were attended by officers of the Veterinary Department, including one fair in a Native State. At these fairs, at which 53,934 horses and mules, or 20,000 fewer than in the preceding year, were shown, sales were effected of 9,689 animals, and Rx. 4,726 were distributed in prizes, of which Rx. 3,554 were contributed from public funds. The highest price, Rs. 700, and the highest average price, Rs. 380, were paid for remounts at the Rawal Pindi fair, as was the case last year; and the lowest average price, Rs. 100, was paid at the Amritsar fair. The highest average price paid for mules for army service was Rs. 185, at the Rawal Pindi show. The largest fair was, as in the two previous years, at Batesar, in the North-West Provinces, to which 11,246 animals were brought, and at which 162 Government remounts were purchased, at an average price of Rs. 255. Horse fairs.

The Bacteriological Department was principally engaged in studying the symptoms and etiology of cattle disease. The arrangements for combating and preventing cattle disease are not equally forward in the several provinces. The Imperial Bacteriological laboratory has been moved to a selected site in Himalayas, near Almora, where investigations will be pursued and remedies devised and tried in a clear, cool atmosphere. The year was marked by very severe rinderpest in many districts of Bombay and in part of Madras. In the single district of Bellary the reported cattle deaths averaged 1,627 a month during the year. Other kinds of cattle disease prevailed in many districts of Burma and other provinces; and generally inquiries appear to show that the prevalence of remediable and perhaps preventible cattle disease is much greater throughout India than has been commonly reported or believed. In 28 districts of Burma 48 veterinary assistants, who have obtained diplomas at the Rangoon veterinary school, are employed in combating cattle disease. In Bombay 16 cattle dispensaries are open, besides those in the city of Bombay; of these four are itinerating and 12 are stationary. All of these institutions were said to be doing either "satisfactorily" or "very satisfactorily"; at each is stationed a trained Native veterinary surgeon; the number of animals treated at these institutions during the year was 16,999. Two cattle dispensaries were open in the Central Provinces, at which 3,717 animals were treated, and there was one cattle dispensary in Berar. In the Punjab there are now seven cattle dispensaries at which 1,005 in-patients and 12,982 out-patients were treated; these dispensaries cost the district board Rx. 951 during the year. A veterinary hospital exists at Calcutta; the Darjeeling municipality employs a veterinary assistant; and two more cattle dispensaries have been opened in Bengal by Government authorities, besides two private institutions of the same kind. Seventy-three veterinary assistants were employed in the Punjab, and 17 in the North-West Provinces, who treated 66,946 cattle in the former and 16,511 cattle in the latter provinces. Cattle dispensaries.

HORSE BREEDING.

Cattle fairs and cattle breeding.

Veterinary officers attended and reported upon 22 cattle fairs in different provinces. At these fairs, during their tours, and by correspondence with civil officers, much inquiry was made into the system of cattle-breeding. It was established that young calves, who are released in the name of religion to become brahmani bulls, are generally sorry animals. The number of such bulls is everywhere extremely small compared with the number of cows to be served. Male calves are rarely castrated till they are three or four years old; the operation is postponed in order to let the young animals grow up strong and sturdy. Most of the stock-getting all over India is done by these young bulls, which are pastured with the cows. Everywhere some and in a few districts a good many landholders keep stud bulls of good breed; a few district councils also keep stud bulls for the use of the people. There is a very general opinion that agriculture and stock-breeding would be greatly advantaged if a larger number of selected bulls of indigenous or other breeds were kept for stud purposes; but the funds and organisation for providing and keeping such animals have not yet been provided. Meanwhile in some regions, such as Lower Burma, where good fodder is always abundant, in dry districts, such as Salem, Hansi, Gujrat, excellent local breeds are maintained.

Veterinary Colleges and Schools.

The Bombay Veterinary College had 69 students, as compared with 63 in the previous year; of these only nine obtained diplomas at their final examination, and 32 passed other minor examinations. The work was interrupted by the plague, of which two students died. Eight of the graduates and two other students obtained lucrative employment on leaving the college, on salaries of 50 rupees to 300 rupees a month. The Lahore College had 81 students, and the results of the year were satisfactory; out of 39 men presenting themselves, 28 gained diplomas at the final examination. The class of shoeing smiths has become most popular, and the number of candidates seeking admission is too large for the teaching power. Qualified students from this college continue to obtain lucrative work in the army and in the civil department. At Calcutta and Ajmere the veterinary schools have now completed their second year; the former had 47 and the latter 38 students; out of 14 Calcutta students who appeared for their final diploma nine passed successfully, while at Ajmere 18 out of 21 were declared to be qualified as veterinary assistants. At the Burma school 21 out of 27 students gained their diplomas at the final examination, and were at once posted to work in the interior of the country.

AGRICULTURAL PRODUCE.

AGRICULTURAL PRODUCE. Agricultural Statistics.

Though there is still much room for improved accuracy, agricultural statistics are now available for all British India, except that for Bengal the returns of crops are approximate only, while stock statistics and returns of the irrigated area are for that province wholly wanting. Assigning to Bengal an irrigated area, and a supply of cattle proportionate to the corresponding totals in similarly situated provinces, we get the following totals for British India, during 1895-96 :—

	Acres.
Total area according to Survey	742,000,000
Deduct, feudatory and tributary States	131,000,000
Deduct area for which no returns exist	69,000,000
Net area	542,000,000
Forest areas	63,000,000
Area not available for cultivation	150,000,000
Culturable waste other than fallow	103,000,000
Current fallows	37,000,000
Net area cropped during year 1895-96	189,000,000
of which bore two or more crops during the year	25,000,000
Total crop area	214,000,000
Total irrigated area (including 6,000,000 acres estimated for Bengal)	34,000,000
Area of rice crop	69,000,000
Area of millet crops	40,000,000
Area of wheat crop	19,000,000
Area of gram crops	12,000,000
Area of barley	6,000,000
Area of pulses and other food crops	26,000,000
Area of orchard and garden crops (chiefly food)	3,000,000
Total food crops	175,000,000
Area of sugar	3,000,000
Area of tea, coffee, spices, and condiments	1,500,000
Area of oilseeds	13,000,000
Area of cotton	10,000,000
Area of jute and other fibres	3,000,000
Area of indigo	1,600,000
Area of poppy (opium)	580,000
Area of tobacco	1,100,000
Area of fodder crops	1,870,000
Area of other non-food crops	1,430,000
Total of non-food crops	37,000,000
Number of cattle (including 25 million estimated for Bengal)	104,000,000
Number of sheep and goats (including 6 million estimated for Bengal)	39,000,000
Number of horses, ponies, mules, and donkeys (including 300,000 estimated for Bengal)	2,600,000

The total crop area, and the area cropped more than once, is returned for the last five years, thus :—

	Millions of acres.				
	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.
Total area of crops	211	221	225	224	213
Including area cropped more than once	23	25	28	27	25

AGRICULTURAL PRODUCE.

Regarding some of the more important staples of Indian agriculture, the following detailed account of the crops of 1896–97 is subjoined.

WHEAT.

The ascertained and estimated area under wheat is given thus :—

	Average Wheat Area for preceding Five Years.	Areas Cultivated with Wheat in	
		1895–96.	1896–97.
	Acres.	Acres.	Acres.
Punjab	7,347,000	6,893,000	6,584,000
North-Western Provinces and Oudh	4,799,000	3,896,000	3,669,000
Central Provinces	3,884,000	2,714,000	1,898,000
Bombay	2,436,000	2,289,000	1,891,000
Sind	653,000	316,000	403,000
Berar	902,000	747,000	381,000
Bengal	1,464,000	1,427,000	1,273,000
Rajputana (approximate)	1,512,000	1,307,000	1,219,000
Central India (approximate)	2,385,000	2,085,000	329,000*
Hyderabad and Mysore (approximate)	1,455,000	1,567,000	853,000
TOTAL	26,737,000	23,241,000	18,000,000*

* Returns incomplete.

The wheat area of 1897 was far below that of ordinary years, by reason of the drought and famine in Northern and Central India; everywhere the yield was smaller than usual. The total yield of wheat for all India was estimated at 4,760,000 tons, compared with 5,511,000 tons in the year 1895–96, and with 6,926,000 tons in years of normal harvest. Wheat prices rose everywhere to famine rates, more specially in the Central Provinces and the North-Western Provinces. The wheat exports of India were lower than in any recent year; and even the small exports of 1896–97 were from the crop garnered in the spring of 1896, before the failure of the rains had occurred in September to November of that year. The wheat export figures for the past few years have been—

1,053,000 tons in	1885–86	608,000 tons in	1893–94
677,000 „	1887–88	345,000 „	1894–95
689,000 „	1889–90	500,000 „	1895–96
1,515,000 „	1891–92	95,000 „	1896–97

During the year 1897–98 the Indian wheat exports have continued very low. The prospects of the wheat harvest of 1898 are decidedly good in the Punjab and the North-West Provinces, and are fair in the Central Provinces.

OIL SEEDS.

The area under, and the yield of, the main oil seeds crops, namely, linseed, rapeseed, and mustard, for all India are given thus :—

		Average for preceding Five Years.	1895–96.	1896–97.
Area in Acres	Linseed and rapeseed	21,458,000	19,067,000	16,401,000
	Sesamum oil seeds	2,235,000	2,645,000	2,472,000
	TOTAL	23,693,000	21,712,000	18,873,000
Yield in tons estimated for all seeds		1,575,000	1,533,000	1,227,000

AGRICULTURAL PRODUCE.

The area sown decreased in 1895–96 by reason of the unfavourable rainy season, and in 1896–97 the drought and famine caused a further large shrinkage of the oilseed area; and the yield per acre was again considerably below normal, though the copious showers of February 1897 made the harvest of spring oil-seeds better than had been expected. The exports of oil seeds in 1893–94 had been the largest on record, and amounted to 1,211,000 tons, valued at Rx. 16,753,000; since then they have fallen year after year, and were 570,000 tons, valued at Rx. 8,012,000, in 1896–97.

RICE.

The rice harvest in 1896–97 gave less than half an average yield in Bengal, and a slightly larger yield in Madras; in Burma there was a full average crop. The total normal area under rice in British provinces is said to be about 68,000,000 acres, of which 40,000,000 belong to Bengal, 6,400,000 to Madras, and 6,400,000 to Burma. The total yield of British India in an average year may amount to 28,000,000 tons of cleaned rice; but in 1896–97 the estimated out-turn did not exceed 14,000,000 tons. The quantity of rice exported from India and Burma beyond the sea was 1,414,000 tons, or nearly 20 per cent. below the total of the preceding year; while the value of the rice exports fell from Rx. 13,537,000 to Rx. 11,947,000. More than two-thirds of the exports went from Burma, which also exported large quantities of rice to Bengal and Northern India. The rice crop of 1897–98 for Bengal, Madras, and Burma is estimated to cover 51¾ million acres, as compared with 48 millions in 1896–97, and with 52¾ millions in ordinary years. The harvest of 1897–98 has yielded a full crop, estimated at 28 million tons, against 14 million tons in 1896–97.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury Rx. 752,000, against Rx. 929,000 in the previous year. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy the same or a slightly higher rate of duty on rice exports. The total exports of rice from Siam, Saigon, Java, and Japan to Europe during 1897 were 412,000 tons, as compared with India's exports of 684,000 tons to Europe in the same year; for the year 1896 India's total had been 762,000 tons, and for 1895 it was 825,000, compared with 189,000 and 220,000 tons from the four other countries in the two years. The large decrease in India's exports to Europe were due to the famine, which deflected Burma's rice surplus to Bengal and Northern India. This year (1898) Burma has an exportable surplus of 1,900,000 tons of rice; and it remains to be seen whether Indian rice will recover its position in the markets of Europe.

COTTON.

The area under cotton in India is returned and estimated as follows:—

	Average Cotton Area for preceding Five Years.	1895-96.	1896-97.	1897-98 Estimate.
	Acres.	Acres.	Acres.	Acres.
Madras	1,525,000	1,624,000	1,455,000	1,472,000
Bombay, Sindh, and Bombay Native States (estimated)	5,595,000	5,416,000	5,021,000	4,511,000
North-West Provinces and Oudh	1,336,000	1,313,000	1,424,000	1,140,000
Punjab	797,000	1,161,000	1,177,000	1,128,000
Central Provinces	670,000	541,000	616,000	652,000
Berar	2,229,000	2,072,000	2,307,000	2,150,000
Nizam's Dominions (estimated)	1,574,000	1,608,000	1,558,000	1,654,000
Central India (estimated)	259,000	321,000	416,000	341,000
Rajputana (estimated)	595,000	515,000	549,000	543,000
Other Provinces (including Bengal) and Native States (estimated)	1,335,000	1,335,000	1,335,000	1,000,000
TOTAL	15,915,000	15,906,000	15,858,000	14,591,000

AGRICULTURAL PRODUCE.

The shrinkage of the cotton area in 1897–98 was mainly due to the desire of the people to replenish as soon as possible their food stocks, depleted by the famine. The yield of 1897–98 was somewhat below the average per acre.

The exports of raw cotton from India were—

1884–85	- -	5,966,000 cwts.,	valued at Rx.	13,286,000
1889–90	- -	6,325,000 „	„ „	18,669,000
1892–93	- -	4,789,000 „	„ „	12,743,000
1894–95	- -	3,387,000 „	„ „	8,708,000
1895–96	- -	5,248,000 „	„ „	14,108,000
1896–97	- -	5,216,000 „	„ „	12,970,000
1897–98	(9 months only)	2,542,000 „	„ „	6,321,000

TEA.

The cultivation and the production of tea in India for the last three years show :—

	Area growing Tea, in Acres.		
	1894.	1895.	1896.
Bengal - - - - - - -	98,345	104,197	105,540
Assam - - - - - - -	268,796	276,014	291,909
Madras - - - - - - -	6,102	6,799	5,270
North-Western Provinces - -	7,652	8,291	7,919
Punjab - - - - - - -	8,921	9,775	9,830
Native States - - - - - -	9,079	9,100	11,444
Burma - - - - - - -	880	812	1,201
TOTAL - - -	398,775	414,988	433,113

The yield of tea per acre during the year is reported to have averaged 443 lbs. in Assam and 394 lbs. per acre in Bengal; elsewhere the yield was lower. The tea crop of 1896–97 was up to the average. Prices in 1896 ranged about 8 per cent. lower than in the previous year. The consumption of Indian tea in India is about 5¼ million lbs., besides 3¼ million lbs. of China and Ceylon teas. The tea gardens of India employ about 482,000 labourers permanently and 107,000 temporarily, or 589,000 labourers in all. The total exports of Indian tea by sea are returned at—

78¾ million lbs. in	1886–87	129 million lbs. in	1894–95
107 „ „	1890–91	137¾ „ „	1895–96
126⅓ „ „	1893–94	148¾ „ „	1896–97

During the year 1½ million lbs. of tea were also exported from India by land into neighbouring countries. The value of India's tea exports in 1896–97 was Rx. 8,125,000, or Rx. 460,000 more than in 1895–96. Australia took 4 per cent. of India's tea exports, against 5 per cent. in 1895–96; less than 2 per cent. was sent to Persia, and 2 per cent. to other countries; while the rest (135½ million lbs.) went to the United Kingdom. The quantity of Indian tea sent direct to the United States was 785,000 lbs., or 36 per cent. above the consignments of the previous year.

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According to the British returns the importations of tea into the United Kingdom have come from China, India, and Ceylon in the following proportions:—

In the Year	From China.	From India.	From Ceylon.
1865	93 per cent.	2 per cent.	0 per cent.
1875	86 „	13 „	0 „
1885	66 „	30 „	2 „
1895	16 „	46 „	32 „
1896	13 „	48 „	36 „
1897	11 „	50 „	38 „

In 1897 tea from China was imported at an average price of 7·2*d.* per lb., while Indian tea fetched at the auction sales in London an average price of about 8¾*d.* per lb., while Ceylon tea similarly fetched an average of 7⅞*d.* per lb. In 1896 the auction averages were, Indian tea, 9⅛*d.* and Ceylon tea, 8⅝*d.* per lb.

COFFEE.

The area under coffee shows a small increase, as compared with the previous year's figures, thus:—

	1894.	1895.	1896.
	Acres.	Acres.	Acres.
Coorg	71,181	73,828	84,820
Madras	64,512	64,000	56,851
Burma	248	267	319
Mysore	136,032	136,052	141,528
Travancore, Cochin, &c.	6,589	6,58	5,566
TOTAL	278,562	281,134	289,084

The coffee industry is said to employ 46,000 persons permanently and 72,000 temporarily, or 118,000 in all. The normal yield of coffee per acre may be taken at from 2½ cwts. for the best European plantations in full bearing to 1 cwt. for Native plantations; much larger yields are sometimes reported. The coffee crop of 1896–97 in southern India was poor, and the yield was 35 per cent. below the estimated out-turn of the preceding year. Prices remained stationary, averaging 93*s.* per cwt. in the London market, compared with 54*s.* and 56*s.*, the averages of 1885 and 1886. The total coffee exports from India were 236,000 cwts. in 1896–97, as compared with 291,000 cwts. in the previous year, and 312,000 cwts. in the year 1891-92.

CINCHONA. Bengal.

The Government cinchona plantations of the Darjeeling district in Bengal were again visited by drought; this drought, though less severe than in the previous year, was disastrous to the plantations, which at the end of the year contained 2,683,000 cinchona trees. All the existing trees are of the quinine-yielding variety, except 185,000, which belong to the cinchonine-yielding variety. During the year 800,000 trees died or were cut down for their bark; while 264,000 trees were planted out. The harvest of dry bark was 629,000 lbs., besides 122,000 lbs. purchased from private plantations. The factory produced during the year 3,452 lbs. of cinchona febrifuge and 10,672 lbs. of sulphate of quinine, a larger quantity than in any previous year. Quinine is now sold to public institutions and Government offices at 13 annas per ounce, while

AGRICULTURAL PRODUCE.

the febrifuge is sold at 8 annas per ounce. The issues from the factory were 2,994 lbs. of febrifuge, and 8,482 lbs. of quinine. These issues with the sales of medicine during the year yielded a profit of Rx. 977, after meeting all charges for maintaining the plantations, renewing plant, and working the factory. The capital cost of the plantation had been repaid by the sale of cinchona drugs in previous years. During the year 3,300 lbs. of quinine, as compared with 3,170 lbs. in the previous year, were put up in 5-grain doses; each dose is carefully packed, and bears simple instructions in one of the vernacular languages of Bengal. The total issues of quinine and febrifuge were 19 per cent. below those of the previous year; the decrease was attributed to the season being less feverish than usual. The stock of drugs in hand was increased to 5,754 lbs.

Madras.

In the Government plantations on the Nilgiri Hills, in Madras, the cinchona trees are mostly of the quinine-yielding varieties; and the Nilgiri barks are richer in quinine than corresponding species on the Darjeeling plantations. The rainfall on the Nilgiri Hills was above the average, was evenly distributed, and was favourable to the growth of cinchona; and there was little frost during the cold season. The number of trees that died or were cut down was 57,000, while 87,000 were newly planted out. The plantations and nurseries continued in good order. The stock of dry bark in hand at the beginning of the year was 300,000 lbs.; the harvest of the year was 187,000 lbs.; the consumption of the factory was 238,000 lbs. The produce of the factory during the year was 7,891 lbs. of quinine, and 3,350 lbs. of cinchona febrifuge; 5,908 lbs. of the former, and 3,709 lbs. of the latter were sold or issued to Government and municipal or local departments. The quantity of five-grain quinine powders sold to the public in the interior was 727 lbs., as compared with 441 lbs. in the previous year. The expenditure of the year was Rx. 7,832, and the value of drugs sold and issued was Rx. 14,753; the quinine was sold and valued at 18 rupees per lb., and the cinchona febrifuge at 10 rupees per lb.

The area under cinchona for all India is returned at 7,687 acres, of which nearly 3,000 acres are on Government plantations; the private plantations are mainly in the Madras Presidency, where the total area under cinchona is returned at 5,091 acres. The industry is declining in consequence of the low price of quinine and of bark; the area under cinchona has fallen from 14,491 acres in 1886–87 to 7,687 acres in 1895–96. The exportation of cinchona bark from India by sea, which was 3,074,000 lbs. in 1888–89, fell to 939,938 lbs. in 1895–96, and 321,478 lbs. in 1896–97.

JUTE.

Bengal continues to be, as heretofore, the only province that produces jute to any considerable extent. The season of 1896 was unfavourable to the jute crop; but the crop of 1897 was a good average yield. The normal jute area of Bengal is given at 2,243,000 acres; and the areas under jute in 1896 and 1897 respectively are returned at 2,196,000 and 2,148,000 acres. The total yield, in bales of 400 lbs., is estimated at 6,850,000 bales in 1897 against 5,575,000 bales in 1896. The fluctuations of the jute trade during recent years have been as follows :—

YEAR.	Exports of					TOTAL.
	Raw Jute.		Jute Manufactures.			
	Quantity.	Value.	Gunny Bags.	Gunny Cloth.	All Jute Manufactures, Value.	
	Cwts.	Rx.	No.	Yds.	Rx.	Value, Rx.
1883–84 - - - -	7,018,000	4,592,000	63,646,000	7,049,000	1,334,000	5,926,000
1887–88 - - - -	9,643,000	6,040,000	74,368,000	13,683,000	1,746,000	7,786,000
1891–92 - - - -	8,532,000	6,848,000	106,251,000	37,289,000	2,513,000	9,361,000
1892–93 - - - -	10,537,000	7,944,000	123,975,000	40,060,000	3,238,000	11,182,000
1894–95 - - - -	12,976,000	10,576,000	143,444,000	103,117,000	4,211,000	14,787,000
1895–96 - - - -	12,267,000	9,993,000	168,247,000	114,181,000	4,747,000	14,740,000
1896–97 - - - -	11,464,000	10,550,000	165,946,000	169,410,000	5,214,000	15,764,000

Of the raw jute exports 59 per cent. went to the United Kingdom, 16 per cent. to Germany, and 12 per cent. to the United States; of the manufactured jute, 17 per cent. went to the United Kingdom, 26 per cent. to the United States, and 13 per cent. to Australia. AGRICULTURAL PRODUCE.

The normal area under indigo in India is about 1,246,000 acres, of which less than one-half belongs to Lower Bengal, about one-quarter to the North-West Provinces, and the remainder to Madras and the Punjab. The indigo area of 1896–97 was in all provinces below the average; as also was the yield per acre. The average price of the exported indigo was returned at Rx. 25·7 per cwt. in 1896–97, as compared with Rx. 28·6 per cwt. in the preceding year. The total exports of recent years have been:— INDIGO.

	Cwts.		Rx.	
1888–89 - - -	142,000	valued at	3,949,000	Exports by sea, besides about 2,500 cwts. annually exported across the land frontiers of India during the last three years.
1890–91 - - -	118,000	„	3,073,000	
1893–94 - - -	131,000	„	4,182,000	
1894–95 - - -	166,000	„	4,746,000	
1895–96 - - -	187,000	„	5,355,000	
1896–97 - - -	177,000	„	4,371,000	

MINES AND MINERAL RESOURCES. MINERAL RESOURCES.

There was again an increase in the production of coal in India. The total yield was 3,537,000 tons in 1895, 3,848,000 tons in 1896, and 4,063,127 tons in 1897. The output in recent years from the principal coalfields has been— COAL.

	Coal produced in			
	Average of Three previous Years.	1893.	1895.	1896.
	Tons.	Tons.	Tons.	Tons.
Bengal - - - -	1,764,000	1,915,000	2,718,000	3,038,000
Central Provinces - -	136,000	135,000	123,000	142,000
Assam - - - -	155,000	164,000	173,000	177,000
Punjab - - - -	56,000	77,000	72,000	79,000
Baluchistan - - -	13,000	20,000	23,000	11,000
Burma - - - -	—	—	17,000	23,000
Rewah State - - -	79,000	94,000	118,000	115,000
Nizam's Dominions - -	140,000	157,000	293,000	263,000
TOTAL - - - -	2,347,000	2,562,000	3,537,000	3,848,000

The total yield of Indian coal 11 years ago, in 1886, was 1,389,000 tons The importations of coal by sea fell from 787,000 tons in 1893 to 519,000 tons in 1895, to 212,000 tons in 1896, and to 276,000 in 1897; of this 97 per cent. came from the United Kingdom. During the year 1897 Bengal exported 212,000 tons of coal to foreign countries, besides 500,000 tons sent by sea to other Indian provinces. Burma now consumes Indian coal, almost exclusively, on her railways. The total number of persons employed in the coal mines was returned at 60,000. On all Indian railways 1,281,000 tons of coal were used in 1896, of which 1,174,000 tons, or 92 per cent., were Indian coal.

The Barrakur Ironworks in Bengal are the only works in India at which pig-iron is produced. In last year's statement it was said that the Barrakur Company had agreed to supply the Indian Government with 10,000 tons of castings and pig-iron yearly for 10 years; a similar engagement to supply 12,000 tons of pig-iron yearly to the East Indian Railway is being negotiated. The company are this year (1898) selling 2,000 tons of castings and pig-iron monthly; and they will shortly be in a position to produce nearly 4,000 tons of pig-iron monthly. During the year ending September 1897 the output of castings at the Barrakur works was 5,744 tons, and the sales for the same period were 5,697 tons. No change is reported in the condition of the small indigenous smelting furnaces which are found in many parts of India. As was explained in a previous statement, the product of these furnaces is undersold by imported iron and steel. IRON.

MINERAL RESOURCES.
EARTH OIL.

The production of petroleum from the principal oil-fields has been returned thus:—

Produced in	Average of Years previous to 1893.	1894.	1895.	1896.
	Gallons.	Gallons.	Gallons.	Gallons.
Burma	8,316,000	10,921,000	12,976,000	14,816,000
Baluchistan	71,000	50,000	none.	none.
Punjab	2,000	2,000	2,000	2,000
Assam	42,000	167,000	36,000	239,000
TOTAL	8,431,000	11,001,000	13,014,000	15,057,000

In Upper Burma a further increase of yield was obtained from the Yenangyaung field by the Burma Oil Company, which has been at work in the Upper Burma field for over 20 years, and which possesses a refinery in Rangoon, and has a staff of skilled American oil-workers. The northern section of the Upper Burma oil-field, known as the Yenangyat field, began to be successfully worked during the year. The output in Assam increased as the Assam Oil Syndicate again began to raise oil. In Baluchistan the attempt to work the oil sources was abandoned.

The importations of earth-oil into India by sea increased considerably during the year, though they fell far short of the high figure of 1893–94.

IMPORTATIONS of Mineral Oils into India.

	1883-84.	1893-94.	1894-95.	1895-96.	1896-97.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
From United States	12,714,697	49,226,000	23,579,000	22,494,000	19,312,244
„ Russia	—	34,045,000	26,613,000	39,876,000	45,483,752
„ elsewhere	1,169,141	395,000	173,000	943,000	3,625,152
TOTAL	13,883,838	83,666,000	50,365,000	63,313,000	68,421,148

The import duty on petroleum was doubled in March 1894, and is now one anna (about one penny) per gallon, but the increased duty does not appear to have permanently or seriously affected consumption. The value of the imported oil was Rx. 3,088,000, and that of the locally-produced oil is estimated at Rx. 540,000 in the year 1896–97.

GOLD.

The gold industry in Mysore continues to advance; down to the end of 1897 only four or five companies had produced any considerable quantity of gold. The results of all the companies working in Mysore during recent years have been:—

	1888.	1892.	1894.	1896.	1897.
	Ounces.	Ounces.	Ounces.	Ounces.	Ounces.
Quantity of gold extracted	35,034	163,188	209,714	321,878	389,789
	Rx.	Rx.	Rx.	Rx.	Rx.
Approximate value of gold extracted.	193,059	980,000	1,540,000	2,000,000	2,200,000
Royalty paid to the Mysore State, approximately.	9,652	49,000	77,000	100,000	110,000

The five companies which gave considerable yields were: Mysore, 126,320 oz.; Champion reef, 120,389 oz.; Nundidroog, 56,377 oz.; Ooregaum, 55,818 oz.; and Coromandel, 12,798 oz.; in four out of the five cases there was a considerable increase over the previous year's output. MINERAL RESOURCES.

The Burma ruby mines were worked by the Company and by native licensed miners under the Company, and there was a slight improvement in the output of rubies. RUBIES.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

X.

PUBLIC WORKS.

PUBLIC WORKS.

During the year under review the Public Works Department was represented in the Council of the Governor General by Mr. A. C. Trevor, C.S.I. The post of Public Works Secretary was held throughout the year by Colonel Sir W. S. S. Bisset, R.E., K.C.I.E.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at a strength below that of the preceding year.

The following statement shows the composition of the superior engineer establishment, as it stood on the 30th June in 1896 and 1895 :—

	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers	54	8	4	66
Other military officers	6	—	—	6
Civil Engineers :				
Appointed from Europe	314	53	50	417
Europeans appointed in India	171	4	6	181
Natives appointed in India	66	15	25	106
TOTAL for 1896	611	80	85	776
TOTAL for 1895	624	79	87	790

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three presidencies were as follows:—

	India.	Madras.	Bombay.	TOTAL.
Europeans	229	63	24	316
Natives	334	105	162	601
TOTAL	563	168	186	917

The engineering branch of the Department is divided into two services, imperial and provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the imperial service is recruited from the Royal Indian Engineering College at Cooper's Hill; the provincial service draws its recruits from students of the Indian colleges who are natives of India, and from upper subordinates of the Public Works Department.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an imperial service under the direct control of the Government of India; the establishment employed on irrigation, and on buildings and roads, is subdivided into different provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is

made in the accounts between expenditure on new works and expenditure on repairs to existing works. PUBLIC WORKS.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1896–97 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.

	Rx.
Railways	20,297,820
Irrigation	3,150,639
Buildings and Roads	696,214
TOTAL	24,144,673

EXPENDITURE (exclusive of Rx. 94,610 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
Railways:	Rx.	Rx.
Construction	12,750	4,243,974
On Revenue Account	22,957,801	—
Irrigation:		
Construction	198,529	740,448
Ditto - from Famine Relief Grant	46,830	—
On Revenue Account	3,052,480	—
Buildings and Roads:		
Military Works	1,157,006	—
Civil Works	4,626,289	—
TOTAL	32,051,685	4,984,422

The expenditure charged against revenue includes the following items of "Interest on Debt" : —

	Rx.
Railways	5,452,514
Irrigation	1,253,479

On the 31st of March 1897 Rx. 127,402,968 of permanent public debt had been incurred on account of railways, and Rx. 31,897,139 on account of irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is Rx. 2,844,343.

RAILWAYS.

A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of the chief facts. As the accounts of the several railways had not been finally closed when the following statistics for the year 1896 were prepared, the figures must be accepted as only approximately correct. RAILWAYS.

The railways of India may be broadly divided into the Guaranteed, the State, and the Assisted. In the early days of railway enterprise the agency of private companies guaranteed by the State was exclusively employed, and nearly all the great trunk lines were made under this system. The chief terms of the contract between the old guaranteed companies and the State were as follows: the Government gave the land required free of charge; it also guaranteed interest, generally at the rate of 5 per cent., on the share capital raised with its consent, and a lower rate upon debenture capital. A general control and supervision over the proceedings of the company was also retained, and Government stores and troops were to be carried on favourable terms. If the net profits in any half-year fell below the amount of guaranteed interest the Government made up the deficiency. If they exceeded this amount the surplus was equally divided between the Government and the company. Moreover, the Government had the right of buying the undertaking at specified dates, on payment of the value of the stock calculated at its market price on the average of the three preceding years. In this way the East Indian Railway was

RAILWAYS.

acquired in 1880, the Eastern Bengal Railway in 1884, the Scinde, Punjab, and Delhi Company's lines in 1885–86, the Oude and Rohilkund Railway at the end of 1888, and the South Indian Railway in 1890. In 1870 a new policy of railway development by the direct agency of the State was inaugurated; and in 1880–81 the system of encouraging private enterprise by State assistance was again resorted to. Both agencies are now employed side by side. The experience gained of the working of the old guarantee system has, however, suggested various modifications in the relations between the State and the companies which have more recently been formed for the construction and working of railways, and the nature of the assistance granted now varies considerably. In some instances, of which the Bengal and North Western Railway is the most important, lines have been constructed without any direct pecuniary assistance; in others a subsidy or limited guarantee has been granted. Special terms have been offered by the Government to attract private enterprise to the construction of branches and feeder lines to the larger systems. Those terms include the concession by the parent line of favourable working rates, and sometimes a rebate on traffic interchanged between the two lines or a guarantee. The agency of private companies has also been employed by the Government both in the construction and working of State lines. In all cases the Government has the power of taking over the railway at specified periods on stated terms.

The following figures, taken from the Finance and Revenue Accounts of 1896-97, show the financial result of the working of the railways in India for the year ending 31st March 1897 :—

	Imperial.	Provincial.	England, including Exchange.	TOTAL.
REVENUE. (Railways.)	Rx.	Rx.	Rx.	Rx.
State Railways — (Gross traffic receipts)	16,416,926	1,222,296	382	17,639,604
Guaranteed Companies — (Net traffic receipts)	2,634,164	- -	- -	2,634,164
Subsidised Companies — (Repayment of advances of interest)	24,052	- -	- -	24,052
TOTAL	19,075,142	1,222,296	382	20,297,820
EXPENDITURE. (Railways Revenue Account.)				
State Railways:				
Working expenses	8,401,908	417,645	- -	8,819,553
Interest on debt	3,615,426	216,797	1,620,291	5,452,514
Annuities in purchase of railways	- -	- -	2,844,343	2,844,343
Interest chargeable against companies on advances	41,178	- -	363,530	404,708
Interest on capital deposited by companies	15,148	- -	1,199,997	1,215,145
Guaranteed Companies:				
Surplus profits, land and supervision	475,385	- -	- -	475,385
Interest	8,225	- -	3,589,007	3,597,232
Subsidised Companies:				
Land, &c.	74,957	10,063	- -	85,020
Miscellaneous railway expenditure	63,690	211	- -	63,901
TOTAL	12,695,917	644,716	9,617,168	22,957,801

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, and Scinde, Punjab, and Delhi Railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand Railway debt

incurred in excess of the money raised through the agency of the "discount" sinking funds; the figures also include charges for land required by the companies, for control, and for miscellaneous items, such as headquarters establishment and surveys. After meeting all these expenses, the total charge to the State in 1896–97 was Rx. 2,659,981.

The statistical results of the working of the various classes of railways during 1897 are given in the following table. The aggregate net earnings of all Indian railways amounted to 5·03* per cent. on the total capital outlay on open lines, including steamboat service and suspense items, but excluding other indirect charges, against 5·24*† per cent. in the previous year :—

RAILWAY STATISTICS, 1897.

CLASS.	Length of Line open on the 31st December 1897.	Total Capital Outlay on Open Lines to the 31st December 1897, including Steamboat and Suspense.	Total Number of Passengers carried.	Total Weight of Goods carried.	Gross Earnings, including Steamboat Service.	Working Expenses, including Steamboat Service.	Net Earnings, including Steamboat Service.	Percentage of Net Earnings on Capital Outlay on Open Lines.
Standard Gauge.	Miles.	Rx.	No.	Tons.	Rx.	Rx.	Rx.	
State lines worked by companies	3,741·27	63,973,865	24,355,651	10,527,503	7,344,487	2,545,568	4,798,919	
State lines worked by the State	‡4,486·62	70,698,483	28,770,314	8,371,395	5,379,831	2,894,997	2,484,834	
Lines worked by guaranteed companies	2,588·12	50,640,909	34,635,046	4,649,561	5,369,806	3,190,654	2,179,152	
Assisted companies	583·41	3,681,363	2,106,903	172,478	196,527	86,204	110,323	
Lines owned by Native States and worked by companies	632·87	6,320,406	2,944,214	954,102	475,965	235,102	240,863	
Lines owned by Native States and worked by State Railway Agency	123·86	767,000	935,404	134,905	72,000	38,500	33,500	
Total for 1897	‡12,156·15	196,082,026	93,747,532	24,809,944	18,838,616	8,991,025	9,847,591	5·02
Total for 1896†	11,614·71	191,186,770	103,326,920	24,316,903	18,707,529	8,824,551	9,882,978	5·17
Metre Gauge.								
State lines worked by companies	§6,479·55	50,868,608	46,566,982	6,938,872	5,294,110	2,774,503	2,519,606	
State line worked by the State	643·60	4,950,758	4,563,809	624,036	535,200	248,500	286,700	
Assisted companies	234·41	1,436,739	860,176	327,363	159,697	99,038	60,660	
Lines owned by Native States and worked by companies	188·30	869,060	1,243,512	241,433	72,856	38,300	34,556	
Lines owned and worked by Native States	854·37	3,048,308	2,901,199	438,451	343,937	168,556	175,380	
Total for 1897	§8,400·23	61,173,473	56,135,678	8,570,155	6,405,800	3,328,897	3,076,902	5·03
Total for 1896†	8,232·23	59,356,627	56,232,011	7,942,705	6,466,088	3,240,351	3,219,736	5.42
Special Gauges.								
State lines worked by the State	28·25	90,161	57,006	21,575	9,681	8,213	1,468	
Assisted companies	72·75	470,961	118,740	65,913	84,205	47,286	36,919	
Lines owned by Native States and worked by companies	97·83	284,500	404,000	58,300	22,410	17,050	5,360	
Lines owned by Native States and worked by State railway agency	22·12	89,250	62,616	14,506	6,365	2,860	3,504	
Lines owned and worked by Native States	94·36	252,000	311,000	34,400	42,400	21,000	21,400	
Total for 1897	315·31	1,186,872	953,362	194,694	165,061	96,409	68,651	5·78
Total for 1896†	267·14	924,149	1,008,132	154,764	158,738	86,987	71,751	7·76
TOTAL of all Railways for 1897	‡§20,871·69	258,442,371	150,836,572	33,574,793	25,409,478	12,416,332	12,993,145	5·03
TOTAL of all railways for 1896†	20,114·00	251,467,546	160,567,063	32,414,372	25,332,356	12,157,890	13,174,466	5·24

* Excluding the West of India Portuguese and Pondicherry Railways. † As corrected from later information.

‡ Including 13·08 miles of the Rindli branch of the North-Western (State) Railway, and 0·95 mile of the Kotri-Rohri Railway previously omitted.

§ Excluding the Gauhati-Jamuna Mukh section of the Assam-Bengal Railway, 74·73 miles, temporarily closed from the 13th June 1897, on account of damages done by the recent earthquake.

RAILWAYS.

It will be observed that, with an increase of 757·61* miles, or 3·77 per cent., in the open mileage as compared with 1896, the gross earnings and working expenses show increases of Rx. 77,121, or 0·30 per cent., and of Rx. 258,442, or 2·13 per cent., resulting in a decrease of Rx. 181,321, or 1·38 per cent., in the net earnings.

The total number of passengers carried show a decrease of 9,730,491, and the quantity of goods handled an increase of 1,160,421 tons as compared with the previous year.

The total railway mileage on each gauge opened during the year, and the sections opened, were as follows:—

STANDARD GAUGE.	*Miles*	*Miles.*	*Miles.*
East Indian—Salanpur Branch Extension		1·15	
North Western (State)—Bolán Junction to Quetta (Mushkaf-Bolán Railway)		85·88	
East Coast (State)—			
Bhubaneswar to Barang	9·94		
Khurda Road to Puri	25·34		
		35·28	
Southern Punjab—Delhi to Samásata		400·71	
			523·02
METRE GAUGE.			
Bengal and North-Western (Company's Section)—			
Salimpur to Barhaj		12·79	
Burma Railways—Amarapura Shore to Shwe Chetyet		1·33	
Assam-Bengal—Gauháti to Jamuna Mukh		†74·73	
Cawnpore-Burhwal (Metre Gauge Link)—Aishbagh to Cawnpore		45·03	
Ledo and Tikak-Margherita Colliery Branch—Dihing Bridge to Ledo		‡7·00	
Ahmedabad-Parántij—			
Ahmedabad to Talod	34·02		
Talod to Parántij	6·75		
Parántij to Idar-Ahmednagar	14·93		
		54·80	
Jámnagar—Rájkot to Jámnagar		50·29	
			245·97
SPECIAL (2FT. 6IN.) GAUGE.			
Bársi—Bársi Road to the town of Bársi		21·75	
The Gaekwar's Dabhoi—Vishvámitri Junction to Pádra		7·14	
Rajpipla—Anklesvar Junction to Raj Párdi		19·03	
			47·92
TOTAL			§816·91

* For difference between this figure and the total length shown as opened during 1897 in paragraph 3, *see* foot-notes ‡ and § on preceding page.
† Temporarily closed to all classes of traffic from the 13th June 1897 on account of damages done by the recent earthquake.
‡ Constituted a railway with effect from the 1st January 1897.
§ *See* foot-note * above.

The additional lengths sanctioned for construction were—

STANDARD GAUGE.	*Miles.*	*Miles.*	*Miles.*
East Indian—			
Háthras Junction to Háthras City	5·61		
Barun to Daltonganj, including Colliery Branch	*82·50		
		88·11	
Oudh and Rohilkhand (State)—Gháziabad to Moradabad		*87·00	
Eastern Bengal (State)—Panchooria to Faridpur		14·59	
East Coast (State)—			
Temporary Puri Station to new Puri Station	1·89		
Gódávari Bridge at Rajahmundry and approaches	4·55		
		6·44	
Great Indian Peninsula—Chálisgaon to Dhulia		*35·00	
Madras—			
Calicut to Cannanore	59·00		
Arcot to Ranipet	4·35		
		63·35	
Carried forward			

* Commencement of work not yet authorised.

	Miles.	*Miles.*
Brought forward - - -		
Bina-Goona—Párbati River to Bara - - - - - -	54·15	
Ludhiana-Dhuri-Jakhal—Ludhiana to Jakhal - - -	80·00	
		428·64
METRE GAUGE.		
Bengal and North-Western (Company's Section)—Azamgarh to Shahganj - - - - - - - - - -	* 33·00	
Eastern Bengal (State)—Teesta Bridge at Kaunia and approaches - - - - - - - - - -	4·87	
Hyderabad-Jodhpore Frontier—Hyderabad (Sind) to Jodhpore Frontier - - - - - - - - -	† 71·25	
Ledo and Tikak-Margherita Colliery Branch—Dihing Bridge to Ledo - - - - - - - - - - -	‡ 7·00	
Mysore-Nanjangúd—Nanjangúd Station to a point half a mile nearer to the town of Nanjangúd - - - - - -	0·50	
Wadhwán-Dhrangadhra—Wadhwán to Dhrangadhra - -	21·00	
Jeypore-Sewai-Madhopur—Sánganeer to Sewai-Madhopur -	73·00	
Bickaneer-Bhátinda—Khari to Lankaransar - - - -	9·00	
		219·62
SPECIAL (2FT. 6IN.) GAUGE.		
Cooch-Behar—Santrabari Extension—		
Alipore to Jhainti (British Section) - - -§20·08		
Cooch Behar to Alipore (Native State Section) -§11·50		
	31·58	
Rewah-Sutna—Rewah to Sutna - - - - - -	* 31·00	
SPECIAL (2FT.) GAUGE.		
Gwalior-Sipri—Gwalior to Sipri - - - - - - -	72·96	135·54
	TOTAL - - -	783·80

* Commencement of work not yet authorised.
† Excluding 48·75 miles of the existing Hyderabad-Shadipalli standard gauge railway between Shadipalli and Rahoki Junction, to be converted to the metre gauge, as also 6·50 miles of the same railway between Rahoki Junction and Hyderabad on which a metre-gauge track will be added.
‡ Constituted a railway with effect from 1st January 1897.
§ Provisionally sanctioned.

The total mileage under construction or sanctioned for construction at the close of the year, *i.e.*, on the 31st December 1897, was as follows:—

STANDARD GAUGE.	*Miles.*	*Miles.*
State lines worked by companies - - - - - -	690·35	
State lines worked by the State - - - - - -	670·49	
Lines worked by guaranteed companies - - - -	136·42	
Assisted companies - - - - - - - - -	271·77	
Lines owned by Native States and worked by companies - -	76·00	
Lines owned by Native States and worked by State railway agency	80·00	
		1,925·03
METRE GAUGE.		
State lines worked by companies - - - - - -	1,176·77	
State lines worked by the State - - - - - -	76·12	
Assisted companies - - - - - - - - -	149.51	
Lines owned by Native States and worked by companies -	428·84	
Lines owned and worked by Native States - - - -	279·62	
		2,110·86
SPECIAL (2FT. 6IN.) GAUGE.		
State lines worked by companies - - - - - -	56·67	
State lines worked by the State - - - - - -	20·08	
Assisted companies - - - - - - - - -	31·00	
Lines owned by Native States and worked by State railway agency	13·88	
SPECIAL (2FT.) GAUGE.		
Lines owned and worked by Native States - - - -	72·96	
		194·59
	TOTAL - - -	4,230·48

The following gives a brief abstract of the important works completed and in progress during 1897:—

East Indian Railway.—Work is in progress on the extension from Moghal Sarai to Gya. The land has practically all been acquired, about half the earthwork is finished, and all the bridges are in hand.

RAILWAYS.

South Behar (Luckeeserai-Gya) Railway.—The construction of this railway was continued during the year. The earthwork and about half the minor bridges are ready, and the major bridges are well advanced.

Bengal Central Railway.—Sidings for the interchange of traffic between the Eastern Bengal (State) and Bengal Central Railways were provided at Dum-Dum Junction.

Bengal-Nágpur Railway.—The construction of the Sini-Midnapore-Howrah and Midnapore-Cuttack extensions was pushed on during the year. Two hundred miles of rails were laid, and considerable progress was made with the earthwork and bridging.

It has been finally decided to construct the Raipur-Dhamtari branch of the Bengal-Nágpur Railway on the 2-foot gauge.

Indian Midland Railway.—A length of 59·75 miles of the Saugor-Katni extension, between Saugor and Damoh, is expected to be ready for opening by March 1898. During the recent scarcity, 16 miles of the extension from Saugor to Gorakota Road were used, as a temporary measure, for the carriage of grain.

Bina-Goona Railway.—On the extension of this Native State Railway from Goona to Bara, the earthwork on the Gwalior and Tonk sections has been completed and that on the Kotah section is in progress. Fair progress has been made on major bridges, and three-fourths of the minor bridges have been completed. Station buildings have been started and half the ballast collected. Permanent-way has been laid on five miles.

North-Western (State) Railway.—The doubling of the railway from Kurrachee to Kotri, 108 miles, was completed. The second line on the first section from Kurrachee to Pipri, 26 miles, was opened for public traffic on the 20th June 1897. The second line on the section from Pipri to Kotri, 82 miles, has been inspected by the Government Inspector and will shortly be opened for public traffic.

Well sinking on the bridge over the Indus at Kotri (one span of 100 feet and five spans of 350 feet) continued during the year. One abutment and four piers have been completed; and the deep water caissons for the two remaining piers have been placed in position.

Three-fourths of the earthwork was completed on the extension of the Lyallpur branch from Lyallpur to Toba Tek Singh, 50 miles. Sleepers have been nearly all delivered, and arrangements are in hand for the supply of second-hand rails from the North-Western State Railway. On receipt of these, the section is expected to be laid through in a few weeks. The manufacture of bricks for the extension beyond Toba Tek Singh to Khanewal, 55 miles, is in progress.

On the Mári-Attock Railway, work was vigorously pushed on until June 1897, when, for financial reasons, progress on less important works was restricted. This restriction was, however, removed at the close of the year, and it is anticipated that the line will be sufficiently advanced to pass trains throughout by December 1898. A separate estimate has been sanctioned for a short new alignment of the North-Western State Railway to form a junction with the Mári-Attock Railway at Cambellpore Cantonment.

On the Mushkaf-Bolán Railway, the second line between Ab-i-gum and Kolpur was completed, and the railway opened for public traffic from the 15th April 1897.

Southern Punjab Railway (Delhi-Samásata).—This line was opened for public traffic on the 10th November 1897, and is worked by the North-Western State Railway administration on behalf of the Southern Punjab Railway Company. The line is at present only partially ballasted, but the ballasting is expected to be completed by May 1898.

Oudh and Rohilkhand State Railway.—It is expected that the section of this railway from Rae Bareli to Benares will be ready for opening in March 1898.

In connection with the Cawnpore-Lucknow-Gogra metre gauge link, the bridge over the Ganges River near Cawnpore, which is a combined road and railway bridge, has been provided with Saxby and Farmer's interlocking gates and signals.

Hardwar-Dehra Railway.—The construction of this railway is being carried out by a State agency on behalf of a "Branch line" company. Work was started in April 1897, and was confined to the first three miles of the line, where some tunnelling had to be done, pending the result of a further survey to ascertain whether a better alignment was available on the rest of the line. The railway has now been re-aligned throughout, and plans and estimates completed.

Eastern Bengal State Railway.—The doubling of the line between Ránaghat and Porádaha was completed, and the second line opened to traffic during the year. The damages done to the line and works by the earthquake of the 12th June 1897 are being gradually repaired throughout the system. The construction of a bridge of 13 spans of 150 feet girders over the Toesta River at Kaunia is in progress. The construction of the Faridpur branch is also in progress.

Sultanpur-Bogra-Kaliganj and Mymensingh-Jamalpur-Jagannathganj Railways.—The construction of these railways, by the Eastern Bengal State Railway administration on behalf of "Branch lines" companies, is in progress.

Cooch Behar Railway.—The damages done to the line and works by the earthquake above referred to, are being gradually repaired. The bridge over the Torsa River and the extension of the railway to Cooch Behar Town are in progress.

East Coast State Railway.—Sanction to the construction of a bridge, consisting of 56 spans of 150 feet in the clear, over the Gódávari River at Rajahmundry was accorded on the 11th May 1897. It has since been decided that another span of 40 feet should be added towards the right approach, to allow the road traffic to pass under the bridge. Fourteen wells from the right bank are in progress. The earthwork of both approaches is in hand.

Bezwada-Madras Railway.—On the unopen section, between Ennúr and Kistna Canal Junction (3 miles south of Bezwada), rails have been laid on 113 miles of the line between the latter station and Nellore, and platelating on the remaining 42·25 miles of this section will probably be completed by the middle of March 1898. It is expected that the railway will be ready for opening throughout by the end of 1898.

Bombay, Baroda, and Central India Railway.—The doubling of the line between Miyágám and Itola, as also between Virár and Dáhánu, was completed, and the second lines on these sections were opened for traffic during the year. Work on the doubling of the Amroli-Miyágám and the Dáhánu-Sachin sections is in hand. At the close of the year, about 64 per cent. of the work in connection with the renewals of the old Warren girders was completed. The new general offices at Bombay are approaching completion.

Tapti Valley Railway.—This line, 162·47 miles in length, from Surat to Amalner, is under construction by the Bombay, Baroda, and Central India Railway Company on behalf of a "Branch line" company. The first section from Surat to Bardoli, 17 miles, is expected to be ready for opening shortly, and fair progress has been made on the length beyond Bardoli to Dondaicha, mile 120.

Rajputana-Malwa Railway.—Considerable additions and alterations have been made at Cawnpore in connection with the Cawnpore-Lucknow-Gogra metre gauge line.

Bhátinda-Ferozepore Standard Gauge Connection.—This scheme, which was sanctioned during the year, provides for the addition of a standard gauge track alongside the existing metre gauge track of the Rajputana-Malwa Railway between Bhátinda and Kot Kapúra, and for the substitution of a standard gauge line between Kot Kapúra and Ferozepore for the existing metre gauge line. The work is about to be started by the Bombay, Baroda, and Central India Railway on behalf of the State.

Ahmedabad-Parantij Railway.—This line, extending from Ahmedabad *viá* Parántij to Idár-Ahmednagar, 54·80 miles, which was under construction by the Bombay, Baroda, and Central India Railway Company on behalf of a "Branch line" company, was opened for traffic in sections during the year, and is being worked by the former company.

RAILWAYS.

Madras Railway.—The junction arrangements at Méttupálaiyam in connection with the Nílgiri Railway were completed.

The construction of the Calicut-Cannanore and Arcot-Ranipet branches has been sanctioned. Work on the former branch is in hand, and is about to be commenced on the latter.

Bengal and North-Western Railway.—On the Tirhoot section, fair progress has been made on the Hajeepore-Katihár extension between Hajeepore and Mansi. The alignment between Kursela Station, on the east bank of the Kosi River, and Katihar is under careful investigation, necessitated by a part of the country on this length being subject to severe inundation from the Kosi floods.

On the Company's section, the lines from Balrámpur to Tulsipur, and from Mohinpurwa (Jangal Motipur) to Katarnian Ghât, are expected to be opened for traffic during the next six months, and the section of the Ganges-Gogra Doab lines from Turtipur to Mau and Azamgarh by the end of March 1898. The Rápti Bridge near Balrámpar has been completed, and a temporary bridge over the Gogra River at Turtipur, which has been started, is expected to be ready for the passage of construction trains shortly.

Cawnpore-Lucknow-Gogra (Metre Gauge Link).—The section of this link between Aishbagh and Cawnpore, 45 miles, was opened for public traffic on the 25th April 1897. The permanent bridge over the Gogra River at Bahramghât is expected to be opened for traffic in March 1898, but the trains of the Bengal and North-Western Railway have been running through to Cawnpore since the re-opening of the Gogra temporary pile bridge on the 21st December 1897.

Segowlie-Raksaul Railway.—This railway is under construction by a "branch line" company, and will, when open, be worked by the Bengal and North-Western Railway Company.

Birur-Shimoga Railway.—This line, which is under construction by the Mysore Durbar, is expected to be ready for opening in July 1898.

South Indian Railway.—The re-arrangement of the Peralam station to accommodate the traffic of the Káraikkal-Peralam Railway, is practically finished.

Káraikkal-Peralam Railways.—It is expected that this railway will shortly be opened for traffic. The construction is being carried out by the South Indian Railway Company from funds provided by the French Government. The line, when open, will be worked by the South Indian Railway Company.

Assam-Bengal Railway.—At the beginning of the year, 254·28 miles of the main line from Chittagong to Badarpur, the branch from Láksám to Chandpur, 31·62 miles, and 74·73 miles of the Gauháti-Lumding section from Gauháti to Jamuna Mukh, were open for traffic, the remaining length of this section from Jamuna Mukh to Lumding, 37·63 miles, and the branch from Badarpur to Silchar, 18·62 miles, being well advanced. The recent earthquake seriously damaged the open line, as also certain sections under construction, and necessitated the closing of the main line beyond Akhaura, mile 125, and the Gauháti-Jamuna Mukh section. Repairs to damages caused by the earthquake and construction work have been in progress. The main line has been re-opened to Badarpur, the Gauháti-Jamuna Mukh section is expected to be re-opened by the beginning of 1899, and it is probable that the branch to Silchar will be ready for opening by the middle of that year.

Burma Railways.—It is expected that the Mogaung-Myitkyina extension, 37 miles, will be opened for goods traffic shortly. On the Mandalay-Kunlon section, work is in progress on the first 190 miles, except at the Gokteik gorge, where the alignment is not yet settled.

Dibru-Sadiya Railway.—The re-construction of the Sessa and Digboi bridges was completed, and that of the Borbil Bridge is in hand.

Ledo and Tikak-Margherita Colliery Branch Railway.—This branch, which had previously been used for the purpose of bringing coal from the mines on the south bank of the Dihing River on to the Dibru-Sadiya line, was constituted a railway with effect from the 1st January 1897 and opened for goods

traffic from that date. The branch is being worked by the Dibru-Sadiya Railway administration. RAILWAYS.

Nilgiri Railway.—Satisfactory progress has been made with the construction of this railway. The tunnels, masonry, and earthwork are practically complete. The work remaining to be done consists solely of rack platelaying and girder erection. Of a total of 82 spans, 34 have been erected. The rack engines, which have arrived, are at work, and the coaching stock is being erected.

Hyderabad-Gódávari Valley Railway.—The construction of this line is in progress. The sections from Secunderabad to Nuggar, 76 miles, and from Manmád to Jalna, 108 miles, are expected to be ready for opening during 1898–99.

Jodhpore-Bickaneer Railway.—On the Jodhpore section, the construction of the line from Balotra, on the Pachpadra branch, to the Jodhpore frontier, 136 miles, is in progress. The earthwork of the banks and smaller cuttings for the first 125 miles is nearly ready and the larger cuttings are about half finished. A commencement was made with stations and buildings and the collection of ballast.

On the Bickaneer section, the extension from Bickaneer to Khari is under construction, and a further extension from Khari to Lankaransar has since been sanctioned.

Hyderabad (Sind)-Jodhpore Frontier Railway.—The project for this State railway includes the conversion of the existing standard gauge line between Shadipalli and Rahoki Junction to the metre gauge, and the provision of a separate metre gauge track between Rahoki Junction and Hyderabad (Sind). Earthwork has been commenced on the first 35 miles of the line beyond the Jodhpore frontier.

Wadhwán-Dhrangadhra Railway.—This native state line, which is under construction by the agency of the Bhávnagar-Gondal-Junágad-Porbandar Railway administration, is expected to be ready for opening by the middle of 1898.

Darjeeling-Himalayan Railway.—The new station buildings at Kurseong have been completed.

Morvi Railway.—A new workshop has been built at Morvi and brought into use.

Gwalior-Sipri Railway.—The section of this native state railway from Gwalior to Mohana, 39·96 miles, is expected to be ready for opening by October 1898, and the remaining length to Sipri, 33 miles, by March 1899.

The following were the principal events during 1897 :—

In order to provide for the development of the railway system in India in a more systematic manner than heretofore, on the basis of a comprehensive and well-considered programme, a Conference of representatives of the various departments of the Government of India interested in the construction of railways assembled in Simla in September 1896, his Excellency the Viceroy being president.

The Conference considered the recommendations of the several Local Governments and Administrations and Chambers of Commerce regarding the railways needed for the development of the country, and recorded its judgment upon the merits of the various projects as a guide to the order in which they should receive consideration by the Public Works Department, subject to the ordinary rules of business.

With the approval of the Secretary of State, a second Conference assembled in Simla in August and September 1897, when the various projects, the execution of which was postponed on the advice of the previous Conference, and also the new proposals submitted, were dealt with in the same way. Similar Conferences will be held annually in future.

The Conference of 1897 referred to above also discussed the general question of the merits of light commercial feeder railways and the gauge which should be adopted for them, and also for military light lines.

RAILWAYS.

No new railways were sanctioned during the year under the "branch line terms" resolution of 1896, but negotiations in regard to the following branches are in progress:—

	Miles.
Gogri-Baptiahi	98
Bhagulpur-Bausi-Baidyanath	90
Ahmadpur-Baidyanath	63

The revised general rules for working open lines of railway were introduced on the Assam-Bengal Railway from the 1st January 1897, and on the Indian Midland Railway from the 1st July 1897. Special rules were sanctioned for the Darjeeling-Himalayan Railway and brought into force from the 1st April 1897.

Bubonic plague having broken out in Bombay, the Contagious Diseases Act, III. of 1897, was passed by the Government of India, under which inspection stations with the necessary staff and segregation camps were established at suitable places on railways. Special instructions were issued for the examination of passengers travelling from infected areas to other parts of India, and for the disinfection of their luggage and of the railway carriages occupied by them.

Owing to the recent scarcity in many parts of the country, the normal direction of the flow of the traffic in food-grains was largely altered, and in some cases actually reversed. To encourage anticipated imports, the principal railways quoted for important traffic despatched from the ports up-country the reduced rates normally applicable to exports, and also made other large reductions in order to develop traffic and stimulate the movement of food-grains into the distressed tracts.

Guaranteed Railway Transactions.

The transactions of the original guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates:—

	Total Capital Outlay.	Net Revenue.	Guaranteed Interest.	Interest in Excess of Revenue.	Net Revenue in Excess of Interest.	Surplus Profits.
Half-year ended the 30th June 1897.						
	£.	£.	£.	£.	£.	£.
Great Indian Peninsula	25,545,087	606,997*	597,199	—	9,798	—
Bombay, Baroda, and Central India	9,628,069†	398,220	217,780	—	180,440	180,440
Madras	11,127,067	282,280	266,980	—	15,300	16,745
TOTAL £.	46,300,223	1,287,497	1,081,959	—	205,538	197,185
Half-year ended the 31st December 1897.						
Great Indian Peninsula	25,583,995†	248,209	597,970	349,761	—	—
Bombay, Baroda, and Central India	9,624,230‡	196,238	219,826	23,588	—	—
Madras	11,138,545	264,675	265,132	457	—	—
TOTAL £.	46,346,730	709,122	1,082,928	373,806	—	—
TOTAL for the Year 1897 £.	46,346,730	1,966,619	2,164,887	168,268	—	197,185
TOTAL for the Year 1896§ £.	46,139,350	2,721,694	2,168,050	—	553,644	775,754

* Including 25,031*l.* paid to Government as rent for the State lines leased to the Great Indian Peninsula Railway Company.

† Excluding the State outlay on the Pátri branch, Rs. 8,08,405.

‡ The decrease as compared with the total capital outlay to the 30th June 1897 shown above is due to a reduction in the stores balance, &c.

§ As corrected from later information.

IRRIGATION.

The nature of the climate and the inequalities of the rainfall will account for the great antiquity of the practice of irrigation in India. Many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled. IRRIGATION.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. In the Madras Presidency alone there are some 60,000 tanks. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works in Madras, the Bombay Deccan, and in Ajmere-Merwara.

In size the tanks vary from the small works formed by earthen embankments thrown across local drainages, often of only two or three square miles in area, to the costly reservoirs constructed by the Imperial Government, such as the Periyar and Rushikulya Works, the reservoirs of which have surface areas of 6,395 acres and 7,900 acres respectively

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the North-Western Provinces, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions, viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Upper Ganges Canal, which has been in operation since 1854, and has cost Rx. 2,985,081, comprises 459 miles of main canal, and 4,216 miles of distributaries, and in the year under review supplied water to 1,083,234 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost Rx. 3,805,919, and consists of 542 miles of main channels and 4,653 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 329, and 844 miles, and together irrigate upwards of 2,000,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results. The irrigation from them is, however, to some extent precarious. If the annual flood from the melting of the snows of the Himalayas does not sufficiently raise the level of the water in the river, it is impossible to pass the necessary volume of water on to the fields or even to give any water at all to many of them.

The works to which the preceding paragraph applies, in most cases, take off from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in the Bombay Presidency, where irrigation is largely dependent on storage works.

In parts of Biluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means

IRRIGATION.

of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "Major" or "Minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "Minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words "Major" and "Minor" is not in complete correspondence with the facts, as there are some Minor Works which are of more importance than some Major Works. But, speaking generally, the "Major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed, by British officers.

The following statement gives a general view of the results obtained from working the canals, for which full accounts are kept, for 1896-97 and the two previous years:—

	Capital Outlay (Direct and Indirect) to End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.	Rx.	Acres.
Major Works - - -	33,352,210	2,976,156	964,520	2,011,636	6·03	10,172,513
Minor Works - - -	5,308,358	637,609	296,959	340,650	6·42	2,568,032
TOTAL for 1896-97 -	38,660,568	3,613,765	1,261,479	2,352,286	6·08	12,740,545
TOTAL for 1895-96 -	37,474,751	2,706,418	1,155,750	1,550,668	4·1	10,308,990
TOTAL for 1894-95 -	36,617,689	2,777,014	1,193,401	1,583,613	4·3	8,692,658

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the North-West provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the North-Western Provinces and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation

receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

The following table gives the mileage of the irrigation canals in operation in each province, with the area irrigated during the year, and the estimated values of the crops raised by means of irrigation from the works :—

	Bengal.	North-West Provinces and Oudh.	Punjab.	Madras.	Bombay, including Sind.	Baluchistan.	Rajputana.	TOTAL.
MAJOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Main Canals - -	700	1,447	1,475	2,061	1,156	Nil.	Nil.	6,839
Distributaries - -	2,604	9,562	7,265	5,712	332	Nil.	Nil.	25,475
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated - -	805,387	2,845,906	3,204,810	2,606,435	709,975	Nil.	Nil.	10,172,513
MINOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals - -	47	—	2,678	1,184	2,074	4	Tank irrigation.	5,987
Distributaries - -	—	591	742	1,182	227	42		2,784
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated - -	—	177,978	960,110	523,424	844,987	3,355	36,653	*2,546,507
	Rx.	Rx.	Rx.	Rx.		Rx.		
Estimated value of crops raised by Major and Minor Works.	3,809,115	12,680,393	15,084,495	6,975,289	—	9,697	—	—

* In addition to these figures, 21,525 acres were under irrigation in Upper Burma.

The crops to which irrigation is most extensively applied in India are rice and wheat. The figures in the following statement, which are for the year 1895–96, show the areas of the principal crops irrigated by the works for which capital and revenue accounts are kept :—

PROVINCE.	Rice.	Wheat.	Jowar and Chari (*Sorghum Vulgaré*).	Bajra (*Panicilaria Spicata*).	Sugarcane.	Cotton.	Barley.	Indigo.	Maize.	Ragi (*Eleusine Coracana*).
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
Bombay (excluding Sind) -	6,056	8,315	18,581	6,869	11,897	122	304	—	1,953	—
Sind - - - - -	391,754	86,358	237,864	200,681	—	60,649	2,107	—	—	—
Punjab - - - -	157,621	1,129,499	293,709	25,272	74,545	350,590	43,155	72,636	131,069	—
Bengal - - - -	429,813	31,752	—	—	54,427	108	11,032	2,333	—	—
Madras - - - -	2,564,108	—	—	—	—	—	—	—	—	50,192
North-Western Provinces -	150,106	728,162	14,556	394	214,529	45,550	74,091	223,441	21,861	—

Besides the works to which the preceding paragraphs apply, there is a large class of works, especially in Sind and Madras, for which capital accounts are not kept.

Individually these works are insignificant, but collectively they supply the means of irrigation to a considerable area. In 1895–96, the latest date for which the figures are available, the net revenue from these works amounted to Rx. 802,187, and the area irrigated by them was 4,731,050 acres, or 47·3 per cent. of that irrigated by the major and minor works.

IRRIGATION.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The following statement gives the mileage of canals open to navigation during the year under review :—

PROVINCE.	Irrigation Canals open to Navigation.	Canals designed for Navigation only.	TOTAL.	Number of Passengers Carried.	Estimated Value of Cargoes.
	Miles.	*Miles.*	*Miles.*	*No.*	*Rx.*
Bengal - -	495	633*	1,128	551,295	11,576,301
Punjab - - -	432	—	432	9,106†	—
North-West Provinces and Oudh - -	535	—	535	—	272,953
Madras - - -	990	262	1,252	198,446	5,339,512

* Includes Nuddea rivers. † Sirhind Canal only.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

Bengal.

In Bengal the most remarkable feature of the year was the great increase of irrigation under the Sone canals owing to the failure of the rains. Some 300,000 acres of rice crops were saved from entire destruction by these canals, and it is estimated that the value to the people of this crop was at least 150 lakhs of rupees—a sum which is more than half the capital cost of the canals.

The general results for 1896–97 of working all the irrigation and navigation systems, for which full accounts are kept, are compared with the results of the five previous years in the following statement :—

YEAR.	Capital Outlay to end of Year.	Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
1891-92 - -	7,362,773	220,171	187,294	32,877	0·4	736,381
1892-93 - -	7,417,261	259,544	195,152	63,392	0·8	662,930
1893-94 - -	7,474,377	235,964	207,926	28,038	0·3	556,065
1894-95 - -	7,528,530	216,078	200,911	16,067	0·2	509,811
1895-96 - -	7,560,584	205,275	174,744	30,531	0·4	579,933
1896-97 - -	7,612,381	252,651	182,868	69,783	0·9	809,167

There are in Bengal four canal systems which are classed as Major Works. Three of these combine irrigation with navigation, and the fourth (Hidgellee Tidal Canal) is purely a navigation work. IRRIGATION.

The financial results obtained from the working of the Major and Minor Works during the year under review are shown in the following statement:—

CANAL.	Capital Outlay to end of Year.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
Major Works:	Rx.	Rx.		Acres.
Orissa Canals	2,623,702	—2,279	—	185,048
Midnapore	846,025	4,535	·53	65,183
Tidal Canal	261,494	5,075	1·94	—
Sone Canals	2,689,737	46,218	1·71	555,156
Total Major Works	6,420,958	53,549	·19	805,387
Minor Works:				
Calcutta and Eastern Canal	595,532	20,918	3·51	—
Orissa Coast Canal	449,829	—164	—	—
Sarun Project	69,675	—1,100	—	4,080
Total Minor Works	1,115,036	19,654	1·7	4,080

The Calcutta and Eastern Canals, which are the most profitable of the canal works in Bengal, are navigation works designed to maintain communication between Calcutta and Eastern Bengal, through the Sunderbunds. The Orissa Coast Canal, also a navigation work, forms, with the Hidgellee Tidal Canal, a complete line of communication between Calcutta and Orissa; and in the event of famine in the latter district would be very useful as a means of importing food.

Besides the Minor Works mentioned in the foregoing statement, there are four works of this class for which capital accounts are not kept, viz., the Nuddea rivers system, the Gaighatta and Buxi Khal, and the Eden and Madhuban Canals. The first-named, which comprises about 455 miles of channel, is used for navigation purposes only. The decline of traffic on these rivers unfortunately continues, and was this year aggravated by the unusually low level of the Ganges.

In the following statement the traffic on the canals in Bengal in 1896-97 is shown in comparison with the traffic results of the previous year. The Nuddea rivers are included in this statement:—

YEAR.	Length of Canal open for Navigation.	Receipts.	Maintenance Charges.	Net Receipts.	Estimated Value of Cargoes.	Number of Passengers.
	Miles.	Rx.	Rx.	Rx.	Rx.	
1895-96	1,128	108,169	66,041	42,128	11,616,938	658,427
1896-97	1,128	111,952	56,965	54,987	11,576,301	551,295

IRRIGATION.

The capital expenditure for the year amounted to Rx. 50,150. There was very little capital outlay on the major works. Among the minor works the outlay was chiefly on the Calcutta and Eastern Canals, and was incurred in the work of canalizing the Bhangore Khal.

North-West Provinces.

In the North-West Provinces, owing chiefly to the early cessation of the rains, and to deficient rainfall during the rabi season, the area irrigated during the year under review was greatly in excess of that for any previous year, and there was a corresponding improvement in the financial results from the working of the canals.

Taking the revenue actually realised, the general results of the year's working are compared with those of the five previous years in the following statement:—

Year.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue to Capital.	Area Irrigated during the Year.
	Rx.	Rx.		Acres.
1891–92 - - - -	8,189,278	446,011	5·45	2,045,030
1892–93 - - - -	8,230,083	424,786	5·16	1,709,846
1893–94 - - - -	8,286,659	439,928	5·31	1,645,197
1894–95 - - - -	8,360,083	428,117	5·12	929,461
1895–96 - - - -	8,491,515	267,987	3·16	2,010,021
1896–97 - - - -	8,655,803	623,778	7·21	3,023,884

Excluding the Betwa Canal, which is a protective work, the major works earned a profit of 7·82 per cent. on their capital outlay. The individual returns from the four works were as under:—

Canal.	Percentage of Net Revenue (actually realised) on Capital.
Upper Ganges - - - - -	9·56
Lower Ganges - - - - -	4·75
Agra - - - - - -	6·02
Eastern Jumna - - - -	26·77

The Betwa Canal, the only "protective" work, was worked at a loss of Rx. 1,399.

The minor works comprise the Dun, Rohilkhand, and Bijnor Canals, and the Bundelkhand Lakes. The net revenue from these works amounted to Rx. 15,083, which gave a percentage of 5·6 on the capital outlay of Rx. 268,418.

The area irrigated by all the canals was approximately 5,000 square miles. This is no less than 31 per cent. in excess of the largest area previously recorded.

The water was distributed from 41,914 outlets to 11,700 villages. Of the total area irrigated, 1,015,120 acres were under wheat, 325,406 under indigo, 247,119 under sugar cane, and 200,671 under rice.

The estimated value of the crops irrigated amounted to Rx. 12,680,393, a sum which exceeds by 50 per cent. the total amount of capital invested in canals in these provinces. The average value of the crop per acre is Rs. 42. The average rate paid by the occupiers for the use of the water is Rs. 2·8 per acre, or one-fifteenth of the value of the crop. IRRIGATION.

The capital expenditure of the year amounted to Rx. 164,287. Of this, 9 lakhs was incurred on the Fatehpur extension of the Lower Ganges Canal, and the balance chiefly on improvements to the head works of the Upper and Lower Ganges Canals, on drainage works, and on the remodelling and extension of distributary channels.

Of the 1,403 miles of main and branch canals of the North-West Provinces and Oudh, 535 miles on the Upper and Lower Ganges, and Agra Canals, were open to navigation during the year.

The navigation operations on the irrigation canals are not profitable. The figures for the last five years are given in the following statement:—

Year.	Excess of Working Expenses over Receipts.
	Rx.
1892-93	421
1893-94	1,148
1894-95	275
1895-96	127
1896-97	707

In addition to the area irrigated by the canals under the direct control of the Irrigation Department, there were 101,350 acres irrigated during the year by the Tarái and Bhábar Canals under the Commissioner of Kumaon.

In the Punjab the year was, from the point of view of irrigation, one of great financial prosperity. Owing to the prevalence of drought in most parts of the province, the demand for water was intense, and the area under irrigation, and the revenue assessed on the irrigated lands were very largely above the average. Punjab.

The area irrigated by the permanent works was the largest on record, but, on the other hand, the lowness of the rivers, owing to the drought, had an unfavourable effect on the working of the inundation canals.

The general results of the year's operations for all works are shown in the following table in comparison with the records of the four previous years:—

Year.	Capital Outlay to end of Year.	Area Irrigated.*	Assessed Revenue.*
	Rx.	Acres.	Rx.
1892-93	7,182,298	2,801,733	737,497
1893-94	7,555,941	2,725,209	729,558
1894-95	7,858,628	2,781,663	770,084
1895-96	8,203,560	3,458,544	1,105,875
1896-97	8,617,852	4,164,920	1,358,968

* Includes Muzaffargarh Canals.

The above figures are exclusive of the Native States portion of the Sirhind Canal and Sirsa branch.

IRRIGATION.

Taking the actual revenue collected during the year, the following table compares the individual results obtained from all the works for which full accounts are kept:—

CANALS.	Length of		Capital Outlay to end of Year.	Net Revenue collected in Year.	Percentage of Net Revenue on Capital Outlay.
	Main and Branch Channels.	Distributaries.			
Major Works:	Miles.	Miles.	Rx.	Rx.	
Perennial Canals:					
Swat River - -	22	143	397,183	25,896	6·52
Western Jumna (including Sirsa Branch).	402	2,016	1,576,005	177,974	11·29
Bari Doab - - - -	353	1,133	1,798,241	213,857	11·89
Sirhind (British portion) -	319	2,714	2,411,826	207,063	8·59
Chenab - - - - -	248	1,323	2,043,138	137,944	6·75
Sidhnai - - - -	68	112	112,410	19,523	17·37
Inundation Canals:					
Lower Sohag and Para -	98	48	71,246	3,486	4·89
Minor Works:					
Upper Sutlej - - -	218	137	79,839	6,055	7·58
Lower Sutlej and Chenab -	801	19	11,862	21,868	184·34
Indus - - - - - -	701	–	70,763	—5,016	—
Shahpur (Imperial) - -	78	94	20,264	3,717	18·34
TOTAL - - -	3,308	7,739	8,592,777	812,367	9·45

On the Native States branches of the Sirhind Canal the area irrigated was 394,291 acres against 276,268 acres in the preceding year. As in the case of the British portion of the canal, this increase was due to the deficient rainfall.

The estimated value of the crops raised on land irrigated by the Imperial canals (including the branches in Native States) was Rx. 15,084,495, giving a rate of Rx. 3·31 per acre. The principal crop was, as usual, wheat, of which there were 1,441,408 acres under irrigation.

The capital outlay on Imperial works for the year amounted to Rx. 414,291, of which Rx. 280,941 was expended upon the Chenab Canal. Good progress was made with the construction of this canal, and the Jhang Branch Lower, and Bhawána Branch, together with 645 miles of new channels from these branches, were opened during the year. On the Western Jumna Canal there was an expenditure of Rx. 47,530. The Sirsa Branch of this canal is now completed.

The Jhelum and Ghaggar Canals were started during the year as famine relief works.

The navigation operations on the Western Jumna and Sirhind Canals resulted in a profit of Rx. 5,548. The profit was realised on the Western Jumna Canal; the Sirhind Canal still continues to show a deficit, which is, however, decreasing.

Burma.

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works, and navigation channels.

In Upper Burma there is only one major irrigation work, namely, the Mandalay Canal, which was sanctioned in 1896. The project provides for a

canal to take off from the Madaya river, 39 miles long, with 86 miles of distributaries, and is expected to irrigate 12,000 acres of land. Jungle clearing and collection of material were undertaken during the year. IRRIGATION.

Much was done in improving and maintaining existing minor irrigation works in the Meiktila, Yamethin, and Kyankse districts. The Nyanngyan-Meiktila tank was finally completed, but owing to the failure of the rains did not fill properly. Progress was made in the construction of the Kyankse tank. A project for the Shwebo Canal, 77 miles long, with 154 miles of distributaries, and estimated to irrigate 130,000 acres, was submitted for sanction. Surveys for other projects were also in hand.

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department. Madras.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snows on distant mountain ranges.

In the year under review the rainfall was not so abundant as in the preceding year, and though the season was not generally unfavourable for agricultural operations, the irrigation returns do not show such good results as in 1895-96.

There are at present 10 "major" works and 26 "minor" works, for which Capital and Revenue Accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 26 minor works for which full accounts are kept, 22 are irrigation systems, and four are tidal canals intended for purely navigation purposes.

Of the works for which full accounts are kept the length of completed main canal was 3,245 miles, and of distributary channels 6,894 miles. The area irrigated during the year by these works was 3,129,859 acres, the crops grown being valued at Rx. 6,153,531.

Taking all the works for which full accounts are kept, the general results of the year's working compared with those of the four previous years will be seen from the following statement:—

Year.	Capital Outlay.	Area Irrigated.	Net Actual Revenue.	Percentage of Net Revenue on Capital.
	Rx.	Acres.	Rx.	
1892-93 - - - -	7,815,967	2,847,201	504,925	6·4
1893-94 - - - -	8,084,636	2,838,427	515,896	6·3
1894-95 - - - -	8,307,160	2,886,483	520,058	6·2
1895-96 - - - -	8,534,471	2,940,317	547,137	6·4
1896-97 - - - -	8,723,253	3,129,859	535,352	6·1

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be Rx. 993,725.

IRRIGATION.

The results of the year's working for the major works in operation are shown by the following figures:—

WORK.	Area Irrigated.	Capital Outlay.	Net Revenue.	Percentage of Net Revenue on Capital.
	Acres.	Rx.	Rx.	
Godaveri Delta	739,849	1,289,734	211,684	16·41
Kistna Delta	482,633	1,278,424	134,213	10·50
Pennér Anicut	68,153	189,667	13,022	6·87
Sangam Anicut	79,786	382,812	14,408	3·76
Kurnool-Cuddapah Canal	87,226	2,171,349	4,674	0·22
Barur Tank	4,440	42,505	537	1·26
Cauvery Delta	977,123	185,520	85,077	45·86
Srivaikuntham Anicut	40,147	146,348	3,226	2·20
Periyar Project	63,751	835,314	—862	—
Rushikulya (Protective Work)	63,327	447,938	1,985	0·44
TOTAL	2,606,435	6,969,611	467,966	6·71

The minor works irrigated an area of 523,424 acres, and earned a net revenue of Rx. 67,385, equivalent to a percentage of 3·84 on the capital expended on them. The purely navigation works, with the exception of the Buckingham Canal, were in each case worked at a small loss.

Besides the works referred to in the foregoing paragraphs, there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The net revenue derived from these works in 1896-97 was Rx. 516,957, and the area irrigated by them was 2,849,185 acres. A plan for the systematic repair of some of these works has now been in progress for some years, under the title of the "Tank Restoration Scheme." Up to the end of the year an expenditure of 52 lakhs had been incurred under this scheme, 34,187 square miles had been investigated, and estimates for 4,863 works had been prepared.

The capital expenditure for the year on the major works amounted to Rx. 98,027. This expenditure was incurred chiefly on the Kistna and Rushikulya works. On the latter project nearly Rs. 45 lakhs has now been expended, against an estimate of Rs. 47,56,000.

Bombay, excluding Sind.

There are 36 irrigation works in operation in the Bombay Presidency, of which nine are classed as Major Works. The canals in this Presidency are generally small, and the water being, in most cases, drawn from small rivers and local streams, more or less dependent on rainfall, a constant supply cannot be maintained without the aid of storage reservoirs. In fact, the reservoir projects, of which there are 27, include the more important works, such as the Bhátghar reservoir, the Lake Fife Works, and the Mhasvad and Ekruk tanks.

The area irrigated in 1896-97 showed a large increase over the area irrigated in the previous year. The increase was distributed over nearly all the canals, and was due principally to deficient rainfall. In particular the Nira Canal proved itself a work of very great value in this famine year, "showing a vast sea of green crops in the burnt-up Deccan plains."

A comparative statement of the results from those works, for which full accounts are kept, for 1896–97, and the preceding four years, is given in the following table:— IRRIGATION.

YEAR.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	Rx.	Acres.	Rx.	Rx.	Rx.
1892–93 - - -	2,531,673	65,487	54,554	30,777	23,777
1893–94 - - -	2,574,279	79,950	57,374	28,741	28,633
1894–95 - - -	2,611,751	84,237	56,348	35,092	21,256
1895–96 - - -	2,626,124	74,923	59,883	29,429	30,454
1896–97 - - -	2,635,987	118,004	55,839	35,994	19,845

The net revenue realised for the year represents a return of 0·75 on the capital expenditure, as compared with 1·16 in the preceding year. The major works in operation produced a net revenue equivalent to 0·92 per cent. on the capital of Rx. 1,873,651 expended on them.

Though the gross revenue realised in 1896–97 shows a falling off from the figures of the previous year, the gross revenue assessed was considerably larger than in 1895–96.

The most important of the major works, judged by the amount of capital expenditure, is the Mutha Canal system with the Lake Fife Reservoir, which in 1896–97 irrigated an area of 6,457 acres, besides supplying the cantonment and civil station of Poona with water. The total expenditure on this work is Rx. 659,893, and in the year under review the net revenue was equivalent to a return of 2·12 on the capital outlay. The most remunerative work in the "major" class was the Krishna Canal, which produced a return of net revenue equivalent to 2·92 per cent. on the capital expenditure. The works known as the Nira Canal and Bhátghar Reservoir, which are classed as protective, are estimated to cost Rx. 610,443 when complete, and will be capable of irrigating 56,640 acres. The return on capital outlay yielded by these works in 1896–97 was 0·28 per cent.

The minor works, for which full accounts are kept, earned a net revenue during the year of Rx. 2,571, equivalent to a return of 0·3 on the capital outlay.

The capital outlay during the year on all works amounted to Rx. 9,862, which was incurred principally on the Nira and Mutha and Gokak Canals.

The total value of the crops irrigated is estimated at Rx. 916,058, against Rx. 496,322 in the previous year.

In the minor class of works, for which distinct capital and revenue accounts are not kept, the expenditure for the year amounted to Rx. 25,681, and the revenue realised was Rx. 56,099, giving a net revenue of Rx. 30,418. The area irrigated by the works of this class was 144,826 acres.

In Sind the success of the irrigation operations is dependent upon the regular rise of the River Indus. The inundation of 1896 was, on the whole, favourable, though not very high. There were no serious floods during the year, and no breaks in the river embankments. Sind.

IRRIGATION.

Taking the works for which full accounts are kept, the general results for 1896-97 and the four preceding years are shown in the following statement:—

YEAR.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.	Area Irrigated.
	Rx.	Rx.		Acres.
1892-93 - - - -	1,237,108	146,533	11·8	1,363,660
1893-94 - - - -	1,293,990	145,466	11·2	1,366,193
1894-95 - - - -	1,358,654	142,486	10·5	1,449,784
1895-96 - - - -	1,456,704	97,712	6·7	1,205,038
1896-97 - - - -	1,627,643	156,626	9·6	1,435,740

In Sind the existence of cultivation depends upon irrigation, and there is a constant demand for the canal water. This fact, and the comparatively inexpensive nature of inundation canals, will account for the favourable financial results obtained from the works.

There are four "major" works in operation in Sind, viz., the Desert, Unharwah, and Begari Canals, and the Eastern Nara Works. These four works earned profits at the respective rates of 2·91, 17·14, 15·40, and 6·21 on the sums expended on their construction.

The net revenue obtained from the minor works gave a return of about 20 per cent. on the capital outlay.

The capital expenditure of the year was incurred chiefly on the Jamrao Canal. There was also expenditure on the Dad Canal and Eastern Nara Works, and, among minor works, on the Fuleli Canal.

Baluchistan.

There are no "major" works in Baluchistan. The class of "minor" works is represented by two schemes now in operation, viz., the Shebo Canal, and the Khushdil Khan Reservoir, the former of which has cost Rx. 67,723, and the latter Rx. 93,555.

In the year under review the working expenses of the Shebo Canal exceeded the revenue derived from the work by Rx. 86.

The net revenue from the Khushdil Khan Reservoir was Rx. 1,460, or 1·5 on the capital expenditure.

The area irrigated by these two works was 3,355 acres, as compared with 5,855 acres in the preceding year. The value of the crops raised was Rx. 9,697.

BUILDINGS AND ROADS.

BUILDINGS AND ROADS.

The buildings and roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including light-houses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., Military and Civil Works. The military works are executed entirely from Imperial funds.

The expenditure on Civil Works is chiefly met from provincial and local resources. The classification of the expenditure for 1896–97 under the heads referred to is shown in the following table:—

	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	Grand Total.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Military Works - - -	1,115,942	- -	- -	1,115,942	24,725	16,339	1,157,006
Civil Works - - - -	657,631	2,131,781	1,685,125	4,474,537	91,371	60,381	4,626,289
Total, 1896–97 - -	1,773,573	2,131,781	1,685,125	5,590,479	116,096	76,720	5,783,295
Total, 1895–96 - -	1,762,936	2,063,159	1,777,957	5,604,052	117,322	89,138	5,810,512
Total, 1894–95 - -	1,466,678	1,991,074	1,698,767	5,156,519	107,142	89,140	5,352,801

This statement does not include the outlay from Imperial revenues recorded under the head of Special Defence Works, which amounted to Rx. 217,867 in 1894–95, Rx. 101,349 in 1895–96, and Rx. 94,610 in 1896–97.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The extension of local Government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

MILITARY WORKS.

MILITARY WORKS.

The total expenditure on Military Works, ordinary and special, amounted to Rx. 1,254,587 in 1896–97, against Rx. 1,357,702 in 1895–96. The cost of Special Defence Works amounted to Rx. 97,581 against Rx. 151,764 in the previous year.

The expenditure of Rx. 1,157,006 on ordinary military works included an outlay of Rx. 421,293 on new works, of Rx. 345,426 on repairs, and of Rx. 293,426 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and Native troops cost about Rx. 260,000, while General Cantonment Works figured at Rx. 35,930.

MILITARY WORKS. The expenditure of Rx. 97,581 on Special Defence Works was made up as follows :—

	Rx.
Coast Defences - - - - - -	11,443
Frontier „ - - - - - - -	14,846
Armaments - - - - - - -	23,874
Establishment - - - - - - -	3,988
Tools and Plant - - - - - -	260
Suspense - - - - - - - -	43,170
TOTAL - - -	97,581

The expenditure under Armaments was altogether appropriated to Coast Defences, which, inclusive of the Armaments, cost Rx. 35,317. The largest outlay was at Aden and Bombay.

More than half the expenditure on land frontier defences was for the water supply, arsenal and defensible position, Rawal Pindi.

Of the total expenditure on Special Defence Works, the net outlay in India was Rx. 21,753, and the balance was applied to the purchase of heavy guns, ammunition, and stores in England. The latter amount includes a sum of Rx. 102 contributed by the Imperial Government towards the defences of Aden.

The total amount expended on Special Defence Works up to the close of 1896-97 (exclusive of contributions from imperial revenues) was Rx. 4,554,264. These works are now pretty nearly complete.

CIVIL WORKS.

CIVIL WORKS. The following statement shows the distribution of the total outlay in India on Civil Works among the different provinces :—

EXPENDITURE in *India* on CIVIL WORKS in 1896-97.

	India, General and Political.	Bengal.	North-West Provinces and Oudh.	Punjab.	Burma.		Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
					Upper.	Lower.					
Expenditure by Public Works Department:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Civil Buildings	48,383	245,755	115,125	108,452	113,191	131,989	30,198	25,216	159,254	153,353	1,130,916
Communications	50,522	75,795	194,937	155,511	113,912	105,700	70,366	179,408	21,000	201,208	1,168,359
Miscellaneous Public Improvements.	6,916	8,245	13,954	38,524	6,265	12,671	904	9,934	7,244	17,164	121,821
TOTAL Works and Repairs	105,821	329,795	324,016	302,487	233,368	250,360	101,468	214,558	187,498	371,725	2,421,096
Establishment	32,970	85,679	116,984	85,707	62,411	55,322	39,340	49,932	51,300	102,516	682,161
Tools and Plant	2,744	2,785	1,768	4,316	3,575	2,651	2,117	3,271	12,947	7,456	43,630
Profit and Loss, Suspense, &c.	1,682	1,570	—6,749	1,143	—257	8,125	163	1,973	—596	3,093	10,147
TOTAL Expenditure by Public Works Department	143,217	419,829	436,019	393,653	299,097	316,458	143,088	269,734	251,149	484,790	3,157,034
Expenditure by Civil Department	7,104	461,351	85,159	18,649	26,056	37,001	16,407	5,284	515,876	144,616	1,317,503
TOTAL Expenditure in India	150,321	881,180	521,178	412,302	325,153	353,459	159,495	275,018	767,025	629,406	4,474,537

CIVIL WORKS.

The greater part of the outlay by the Civil Department, shown in the foregoing statement, was expended upon communications. The following abstract shows the total sums expended in India, by both the Public Works Department and the Civil Department, under the three heads of Buildings, Roads, and Miscellaneous Public Improvements. As in the previous statement, military works are not included :—

	By Public Works Department.	By Civil Department.	TOTAL.
	Rx.	Rx.	Rx.
Civil Buildings	1,130,916	125,065	1,255,981
Communications	1,168,359	766,744	1,935,103
Miscellaneous Works	121,821	197,159	318,980
TOTAL Works and Repairs	2,421,096	1,088,968	3,510,064
Establishment	682,161	182,377	864,538
Tools and Plant	43,630	9,626	53,256
Profit and Loss, Suspense, &c.	10,147	36,532	46,679
TOTAL	3,157,034	1,317,503	4,474,537

The expenditure in England consists to a great extent of furlough and absentee pay and allowances of military and civil officers of the Public Works Department. It also includes the expenses of the Royal Indian Engineering College at Cooper's Hill, which amounted in 1896-97 to 25,995*l.* The revenue of this institution for the year was 26,224*l.*

The following more detailed account of the operations of this branch of the Public Works Department for the year under review is given under the heads of the different provinces in which the expenditure was incurred.

Bengal.

In Bengal the expenditure for the year on civil works was as follows :—

	Rx.
Imperial—Civil	67,371
Provincial	382,895
Local	430,914
Total	881,180

The most important imperial work in progress was a building in Koilaghat Street, Calcutta, for the office of the Comptroller of the Post Office. The erection of a clock tower at the General Post Office, Calcutta, was nearly finished.

The greater part of the expenditure from provincial funds was upon the construction and repair of buildings; the maintenance of the road system in Bengal being very largely in the hands of the district boards.

Among collectorate offices may be mentioned the construction of a building for the magisterial court and offices at Burdwan, and the reconstruction of the Deputy Commissioner's cutcherry at Darjeeling, which had been destroyed by fire.

Among the works carried out in jails during the year was the installation of the electric light in the Alipore central jail. Extensions of the central jails at Bhagulpur and Buxar were in progress.

CIVIL WORKS.

There was considerable expenditure under the heads of colleges and hospitals A new chemical laboratory in the Medical College, Calcutta, and improvements in the physical laboratory of the Presidency College were in hand, and arrangements were made for fitting up the new science class building attached to the Dacca College with necessary appliances.

A scheme for the complete reconstruction of the Presidency General Hospital at a cost of 22 lakhs has been accepted by Government. Extensions to the Campbell Hospital, Sealdah, and improvements in the dispensary building of the Medical College Hospital, were in course of construction, and a scheme for establishing a central asylum at Bandel was under consideration.

Among miscellaneous works mention may be made of the new secretariat building which was being constructed at Darjeeling, and the enlargement of St. Andrew's Church at the same station. Steps were taken towards the establishment of a Government central ganja storehouse. The Calcutta workshop division was closed during the year, and the buildings with the plant and machinery made over to the Sibpur College.

The total length of road communication in Bengal maintained by public authorities during 1896–97 was:—

	Metalled Road.	Unmetalled Road.	TOTAL.
	Miles.	Miles.	Miles.
Maintained by Public Works Department -	1,168	491	1,659
„ Local Authorities - - -	3,176	33,880	37,056
TOTAL - - -	4,344	34,371	38,715

In view to the preparation of a well-considered programme of road extension and improvement, detailed schemes have been called for from the various districts. The pressure of famine in various parts of the province prevented the much-desired projects for providing road communications in the Duars from being taken in hand.

Famine relief works on an extensive scale were taken in hand by the Public Works Department in North Behar and elsewhere. These works were for the most part confined to the construction of roads and tanks.

The supply of electricity to the town of Calcutta for lighting and other purposes was undertaken by an English syndicate under the title of the Calcutta Electric Supply Corporation, Limited. In addition to the lighting of the town the scheme at first contemplated by the company included the working of the Calcutta tramways. The latter part of the scheme is, however, for the present in abeyance. Negotiations were also in progress for the lighting of Darjeeling by electricity.

North-West Provinces and Oudh.

The energies of the Public Works Department in the North-Western Provinces were severely tried in the year under review by the famine relief operations necessitated by the prevailing drought. The Public Works expenditure on famine relief amounted to Rx. 778,622. Apart from this expenditure, the outlay on ordinary public works was as follows:—

	Rx.
Imperial—Civil - - - - - - -	17,963
Provincial - - - - - - - - -	286,621
Local - - - - - - - - - -	216,954
TOTAL - - -	521,178

Civil Works.

The chief works of interest or importance under construction during the year were the building for a bacteriological laboratory at Mukhtesar, and the works at Naini Tal, which include the erection of a new Government House on the site formerly occupied by the Diocesan Boys' School, and the building of a new school on another site. New Kachahri buildings, estimated to cost Rx. 12,603, were being constructed at Naini Tal, and a sessions circuit house with out-houses at Unao.

Under the head of Communications may be mentioned the bridge over the Kali Nadi at Chatri, in the Aligarh district, which was completed, and the protective works at the Kandhour Bridge on the Saharanpur and Dehra road.

It is reported that the continued drought affected the condition of metalled communications very seriously everywhere, and increased expenditure and careful management will be necessary for the next two or three years. The famine relief operations consisted generally of road works.

Punjab.

In the Punjab the expenditure was considerably smaller than in the preceding year. The outlay on civil works was as follows:—

	Rx.
Imperial - - - - - - - - -	73,909
Provincial - - - - - - - - -	247,045
Local - - - - - - - - - -	91,348
Total - - -	412,302

The Public Works establishments maintained by the district boards and municipalities are distinct from the Provincial Government staff. Efforts are being made towards unification of these different establishments, economy sometimes resulting from the employment of district board officers to carry out provincial works, and *vice versâ*, of officers of the provincial establishment to supervise or carry out works executed from district or municipal funds. In pursuance of this policy various buildings and roads were this year transferred from the control of the Public Works Department to Local Boards or Municipalities, or *vice versâ* to the Public Works Department.

The most important works under the head of Imperial were the buildings and water supply for the cantonment and civil station at Para Chenar, in the Kurrum Valley; improvements to the Viceregal Lodge, Simla, and the construction of the Public Works Secretariat buildings at that place.

The provincial works included a combined boarding house for the Central Training College, the Normal School and Central Model School at Lahore; new sessions house at Jhelum; quarantine cells at Peshawur; and a Commissioner's residence at Delhi. Among works of communication may be mentioned the reconstruction of the Chablat Bridge on the Lahore and Peshawur road; a new girder bridge over the Jhelum at Kohalla; a road in the Chenab Canal colony from Pindi Bhattian to Sheikhupura; reconstructing the Bhimber bund at Gujrat; constructing a road from Nahakki to Charsadda; metalling and improving the feeder road from Amritsar to Ajnala; and the extension of the Indus river protective bund at Dera Ghazi-Khan.

The district works included the Jubilee High School at Rohtak; the construction of the Sarsuti Canal in the Karnal District; and metalling the Delhi-Najafgarh, Gujranwala-Hafizabad, Sialkot-Amritsar, and Jhajjar-Bahadurgarh roads. The more important works carried out from municipal funds were school buildings at Simla, and waterworks at Umballa.

Under the head of Famine Relief, the most important works in hand were the raising of the road from Phalia to Ramnal, and constructing the Kaithal branch extension of the Sarsuti Canal.

The comparative expenditure on civil buildings and communications was as follows:— CIVIL WORKS.

	Original Works.	Repairs.	TOTAL.
	Rx.	Rx.	Rx.
Civil Buildings - - - -	68,728	39,724	108,452
Communications - - - -	33,378	122,131	155,509

Excluding station roads, the total road mileage at the end of the year was 26,056 miles, viz., 2,327 miles metalled, and 23,729 unmetalled. Boat bridges and ferries were maintained at various points on the Indus and its tributaries. At Dera Ismail Khan and Dera Ghazi Khan steam ferry services are worked in connection with the North-West Railway. The capital cost of all boat bridges and minor ferries amounted to Rx. 54,786, and the cost of maintenance during the year was Rx. 15,539.

In Lower Burma the total expenditure for the year was:— Burma.

	Rx.
Imperial - - - - - - - - -	—
Provincial - - - - - - - - -	278,722
Local - - - - - - - - - -	74,737
Total - - -	353,459

Under Civil Buildings the most important new works were connected with the Administration of Law and Justice, and with the Police Department. Various new Court houses and Record rooms were erected. The work on the Reformatory for Juveniles, Insein, was completed at a cost of Rx. 18,422, and extensions to the jails at Rangoon, Bassein, and other places were carried out.

The wants of other departments also received attention, but no works of any unusual importance were undertaken.

The total length of roads maintained by the Public Works Department in Lower Burma at the end of 1896-97 was 2,756 miles, of which 993 miles were metalled. New roads to the extent of 128 miles were opened out. Other roads were completed by building bridges where required, or by improving them to meet increasing traffic.

There was considerable expenditure on navigation works. Improvements to the Pegu-Sittang and Sittang-Kyaikto canals were in hand, and the construction of the Kyaikto-Bilin canal was taken up.

In Upper Burma the outlay was chiefly met from imperial funds. The year's expenditure was as follows:—

	Rx.
Imperial - - - - - - - - -	296,123
Provincial - - - - - - - - -	—
Local - - - - - - - - - -	29,030
TOTAL - - -	325,153

No large civil buildings were undertaken during the year. Court houses, police thanas, barracks for civil and military police, &c., were built when required, and additions and alterations were made in existing buildings to suit local requirements. Good work was done in improving and maintaining roads, such as the Ruby Mines road, the extension of the existing branch road from Bawyethet to Taunggyi, to serve Kengtung, which will eventually bring the whole of the Southern Shan States in the neighbourhood of Mong Nai into communication with the railway and the Mandalay-Lashio road. The total length of roads now maintained in Upper Burma is 3,220 miles, of which 120 miles were opened during the year.

The outlay on famine relief works was Rx. 53,627, which was almost entirely spent on the Meiktila-Myingyan Branch Railway.

The cost of works undertaken for the purpose of affording famine relief, which amounted to over 16 lakhs, largely increased the expenditure in the Central Provinces from imperial funds during the year under review. Central Provinces.

CIVIL WORKS.

The amount of the normal expenditure for the year was :—

	Rx.
Imperial	851
Provincial	128,028
Local	30,616
TOTAL	159,495

Outside of the famine relief operations there was no outlay from imperial funds on civil works of any importance.

The provincial buildings under construction were of the usual kind required for the different branches of the administration, such as tahsils, godowns, court houses, jails, police quarters, educational buildings, &c. With the exception of the additions and alterations to the Narsinghpur jail, they included no work of any magnitude.

The famine relief works helped to swell the amount of roads under construction or improvement during the year. Many important roads were in hand, and surveys were carried out for further extensions amounting to 184 miles.

The total length of roads maintained in the province during the year from public funds was :—

	Miles.
Metalled roads	1,419½
Unmetalled roads	5,360½
TOTAL	6,780

Important water-supply schemes, the cost of which is met from local loans, are under construction at Khandwa and Wardha, and other projects are under consideration.

There are two collieries managed by the Provincial Administration, viz., at Warora, in the Chanda District, and at Umaria, in the Rewah State. The total output from the Warora Mines was 113,454 tons against 114,800 tons in the previous year, showing a decrease of 1,346 tons. The net profit from the working of the colliery was Rx. 17,738, or 9·18 per cent. on the total capital outlay. The working of the Umaria Colliery resulted in a net loss of Rx. 148. The output from this colliery was 116,571 tons, against 121,189 tons in 1895–96.

Assam.

The total expenditure in Assam for the year was as follows :—

	Rx.
Imperial-Civil	31,624
Provincial	168,848
Local	74,546
TOTAL	275,018

The expenditure on public works in Assam is mainly devoted to the maintenance and improvement of the road system, the outlay on buildings being comparatively small. The most important work in hand was the Nichuguard-Kohima-Manipur cart-road, which is now approaching completion, the amount spent on it being Rx. 355,064 out of an estimated cost of Rx. 371,459. The monument to Mr. Quinton and the officers and men who lost their lives in Manipur in 1891 was completed.

Madras.

The expenditure in Madras was as follows :—

	Rx.
Imperial	4,663
Provincial	322,113
Local	440,249
TOTAL	767,025

In the classes of buildings and roads there were no Imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local Civil Works. CIVIL WORKS.

The buildings under construction or extension in the town of Madras included the new Law College, which was practically completed, and the additions which are being made to the Presidency College. The extension of the Chemical Laboratory attached to the Medical College was completed.

In the districts the buildings under construction were of the usual type of taluk offices and cutcherries, court houses, and other buildings required by the different branches of the Administration. Work was started on the public offices at Tangore, and progress was made with the extension of the Normal and Unions Schools at Rajahmundry. An observatory building at Kodaikanal was commenced.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department, and there was some expenditure during the year on the maintenance and improvement of the Ootacamund-Kullar and Chundale-Mysore roads. The greater portion of the road system in Madras is, however, in the hands of the local boards, whose expenditure is not under the control of the Public Works Department. They maintain their own engineering establishments, though in some cases they employ the agency of the Public Works Department for particular works. In the year under review 22,353 miles were maintained by the local boards.

An important feature in the Public Works of the Madras Presidency, owing to the length of its coast line, is the maintenance of its harbours and light-houses.

Progress was made with the extension of the Northern and Southern jetties at Cocanada. The works in connection with the new pier and reclamation of the foreshore at Tuticorin are completed. Plans and estimates were under preparation for the improvement of the structures and illuminating apparatus of the lighthouses along the coast.

In the districts of Bellary, Cuddapah, and Kurnool, there was considerable distress from the failure of the crops. Famine relief works, consisting almost entirely of road-making and repairs, were instituted by the Department, and at the close of the year there were 58 such works in operation giving employment to more than 70,000 relief workers.

The expenditure on civil works in the Buildings and Roads Branch in the Bombay Presidency for 1896-97 was as follows:— BOMBAY.

	Rx.
Imperial	20,880
Provincial	317,509
Local	291,017
TOTAL	629,406

The whole of the imperial expenditure was devoted to civil buildings. No new work of importance was undertaken during the year, the greater part of the outlay being spent in constructing offices and residential quarters for subordinate officers of the Salt, Customs, Post Office, and Telegraph Departments. On the Somáli coast the construction of a residency and court-house was still in progress, the police lines were improved, and several minor works carried out.

The expenditure from provincial and local funds under the head of civil buildings included the construction or improvement of a number of mamlatdar's offices, record rooms, bungalows, and distilleries, and at Surat the new buildings for the experimental farm were completed.

Improvements to the residency at Baroda were executed, and the construction of a Rájasthanik Hall at Sádra was begun.

As in previous years, buildings and remains of archæological interest were kept in repair. Improvements and alterations to the Wilson College, Bombay, were effected, and the main buildings of the Gujerát College at Ahmedabad

CIVIL WORKS.

were ready for occupation in February 1897. Several additions to the Deccan College, Poona, were in progress. Several high schools were completed during the year, and extensions to the Training College at Dhárwár were practically finished, an important part, the practising school, being declared open by his Excellency the Governor in March 1897. Municipal and local fund school-houses were completed or in progress in all the divisions of the presidency. The construction of a campanile for the Church of the Holy Name at Poona was in progress. Several court-houses for subordinate judges were constructed or enlarged. Additions to the jail buildings at Ahmedabad, Yeraoda, Hyderabad, Thána, and Dhárwár, were carried out. Over Rs. 2½ lakhs were spent on the construction, improvement, or extension of a large number of police offices and lines, the most important being the erection of new head-quarter offices at Bombay. Additions and alterations were made to a number of Government medical institutions, and the construction of a hospital for women and children was completed at Surat. Several local fund dispensaries were erected or improved, including a veterinary hospital at Ahmedabad. Among miscellaneous buildings in progress during the year, the most important was the improvement of the drainage of the Public Works Offices at Bombay.

The total outlay on communications during the year was about 25½ lakhs of rupees. The most important work completed was the bridge over the Godaveri river at Násik, which was formally opened for traffic in April 1897. Surveys of three roads in the Thána and one in the Ahmednagar district were in progress or completed. A small outlay was incurred on improving the accommodation for travellers, and the planting and preservation of roadside trees continued to receive careful attention.

The total mileage of roads maintained from imperial and provincial funds was as follows:—

—	Completed.	In Progress.
Imperial - - - - -	13	—
Provincial - - - - -	3,522	23

There were, in addition, 3,946 local fund roads in charge of the Public Works Department, of which 139 were in progress.

The miscellaneous public improvements included the Surat, Ránder, Dhulia, and Panvel Waterworks. Substantial progress was made with drainage and sewerage works. Under this head the works on the Chanpáti estate at Bombay, and at Nadiad, Násik, and Ahmedabad may be mentioned. Flood protection works were completed at Bulsar in the Surat district, at Láli, in the Kaira district, and at Hyderabad in Sind.

Berar.

The expenditure on public works in the Hyderabad Assigned Districts was as follows:—

	Rx.
Imperial - - - - - - - - -	3,418
Provincial - - - - - - - - -	84,989
Local - - - - - - - - - -	28,104
TOTAL - - - -	116,511

The greater part of the year's outlay was upon the extension and repair of the road system. Considerable expenditure was incurred on tree planting on roadsides.

The most important bridge under construction was an iron girder bridge across the Bhimla river at Peloti.

The length of roads maintained by the Provincial Public Works Department was 1,034 miles.

The buildings completed or under construction during the year do not present any feature of unusual interest. A new tahsil at Ellichpur, and the distillery at Akola, were completed.

The waterworks at Akola and Secunderabad were also finished during the year, the former at a total cost of Rx. 52,358, the latter at a cost of Rx. 90,874. CIVIL WORKS.

In Coorg there were no works in progress of sufficient importance to call for individual notice. The expenditure for the year on civil works amounted to Rx. 24,201, of which Rx. 22,121 was met from imperial funds, and Rx. 2,080 from local resources. Coorg.

The length of road maintained by the Public Works Department was 178 miles from imperial funds, and 119 miles from local funds.

NATIVE STATES.

A full account of the public works in the districts under Native administration in India cannot be given, owing to the want of information in the case of some of the States. In the minor States the works are for the most part insignificant, but in the larger States there are works of importance, and some of considerable size, in many cases carried out by European engineers lent by the British Government. NATIVE STATES.

The total expenditure by the Public Works Department of the Central India Agency in 1896–97 amounted to Rx. 29,649, the greater part of which was upon the extension and maintenance of roads. The total length of road communication maintained by the Department was 780 miles. Central India.

The operations of the Public Works Department in the Agency have been much reduced by the transfer to the chief Native States of the care of the metalled roads in their territories, which has been noticed in previous years' Reports. The duties of the Public Works Department lie not only in maintaining important lines of communication, such as the Agra and Bombay, Nimach and Mhow, and Mowgong and Sutna roads, and in designing and executing projects within territories which are too intermixed or too impoverished to be treated on the footing of the larger States, but also in advising the States that are capable of executing their own projects as to the direction in which their efforts may be most usefully exerted, and in inspecting the work done by the larger States on behalf of the Imperial Government.

Railways form the chief feature in the Native public works, and there is a growing tendency among the rulers of Native States to promote railway extensions within their borders. The Guna-Bina, Ujjain-Bhopal, and Ujjain-Nagda lines are now complete, and work has been commenced on the Guna-Bara extension. Sanction has been given to the construction of a line on the 2-feet gauge from Gwalior to Sipri.

Of other works executed or in course of construction in the various States comprised in the Agency the following may be mentioned :—

In Gwalior additions and improvements were made in the Victoria College and Memorial Hospital, and progress was made with the Maharaja's palace at Ujjain. There were no works of special importance in the other States. About 775 miles of metalled road were maintained, and owing to the drought many works were undertaken as famine relief works.

The total outlay in 1896-97 on public works in Rajputana was Rx. 549,725, of which Rx. 514,675 was incurred in the Native States. The expenditure was larger than in the previous year, and the increase is due in a large measure to the interest and activity shown by some of the States in the development of railway construction. To relieve the distress occasioned by the high price of food grain, earthworks were commenced on railways in Marwar (Shadipalli-Balotra line), in Bikanir (Bikanir-Kari line), and in Kotah and Tonk (Goona-Bara line). The surveys for the Bikanir-Kari-Bhatinda, and Jeypore-Chambal lines are under preparation. The line in Marwar, from Balotra to Shadipalli, will, when completed and extended, eventually open out through communication with the seaport of Karachi. Rajputana.

NATIVE STATES.

Irrigation works are being commendably pushed forward in several States, notably in Bikanir, and in Jeypore. A good deal is being done in Marwar and Bhurtpore and Ulwar to store water, which flows during the rains only, and which has hitherto been allowed to leave the country.

In Marwar the chief irrigation work in hand is the Jaswantsagar tank, which has a catchment area of 1,300 square miles. A project for the Dhaolera tank, estimated to cost Rx. 57,322, is under preparation. Projects for supplying Jodhpore with water, and for cleaning the city, are also under consideration.

In Jeypore the number of irrigation works completed or in progress is 142, with a total length of 711 miles of main channel, and 617 miles of distributaries. The area irrigated in 1896–97 was 49,766 acres.

In Bhurtpore there was considerable expenditure on irrigation. The most important works in hand were the Bareta bund, and the works for controlling the floods of the Bangunga river.

A valuable irrigation scheme, known as the Ghagger Canal, was started during the year. This work lies partly in British and partly in Bikanir territory, and is estimated to cost Rx. 61,713.

The total length of roads maintained by the Native States in Rajputana during 1896-97 was 1,389 miles, in addition to about 740 miles maintained by the Imperial Government.

Madras.

In the Native States under the control of the Madras Government there was no event of importance to notice during the year in connection with public works.

In Travancore the total expenditure was Rx. 162,844, of which Rx. 42,496 was upon communications, Rx. 20,550 upon buildings, and Rx. 20,540 on irrigation. Ninety-two miles were added to the 1,852 miles of cart roads already existing.

In Cochin the expenditure was Rx. 42,343, of which Rx. 7,340 was upon buildings, and Rx. 10,826 upon bridges and canals. The miles of roads maintained amounted to 382.

Bombay.

The Government of Bombay exercises political control over some 350 Native States, presenting numerous gradations of size, wealth, and civilisation.

Leaving out of account the railways, the amounts expended by the Native States under the control of the Government on public works during the year were generally small, and, excepting the Lalpuri waterworks, there were no individual works of unusual importance to be recorded. The most important group of Native States lies in North Gujarát, and covers an area of about 44,000 square miles. Of the chief States included in this area, Cutch expended Rx. 13,926; Palanpur, Rx. 2,260; Radhanpur, Rx. 8,289; and Mahi Kantha, Rx. 10,569. In the Káthiáwár States the outlay on public works amounted to Rx. 251,156, Bhávnagar heading the list with an expenditure of Rx. 49,838. The most important public work in hand was the Lalpuri irrigation and water-supply project in the Rajkot State, estimated to cost about 3¼ lakhs of rupees. Various small sums were devoted to public works in Cambay and Rewa Kántha.

In the groups of Native States comprised in South Gujarát and North and South Konkim there is nothing in the public works expenditure to call for detailed notice. The largest amount expended was in Janjira, where there was an outlay of Rx. 6,893. The same remark applies to the States in the Deccan and South Mahrátha country. The largest items were an expenditure of Rx. 56,199 in Kolhapur, and of Rx. 16,816 in the Sangli State.

XI.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

THE receipts and charges of the Post Office for the last two years, as shown in the Finance and Revenue Accounts, are given in the following statement:— POST OFFICE.

YEAR.	Receipts.	Expenditure.	Net Revenue.	Net Charge.
	Rx.	Rx.	Rx.	Rx.
1895-96 - - - - -	1,712,962	1,643,317	69,645	—
1896-97 - - - - -	1,783,474	1,698,156	85,318	—

If indirect expenditure in connection with the Post Office were added, on the one hand, and a deduction made, on the other hand, of the charges for the District Post (except Baluchistan), which are provided for by local cesses, the net financial results of the two years would be surpluses of Rx. 108,974 and Rx. 132,768 respectively.

The extent of the sphere of operations of the Post Office, and its development during the last three years, are shown in the tables in the margin. These figures are exclusive of the District Post, of which the Post Offices increased from 1,473 in 1895–96 to 1,483 in 1896–97, the letter-boxes from 3,463 to 3,688, and the staff of village postmen from 3,029 to 3,090.

YEAR.	Post Offices.	Letter Boxes.	Village Postmen.	Length of Postal Lines.
	No.	No.	No.	Miles.
1894-95 - - - - -	9,242	15,002	4,144	83,597
1895-96 - - - - -	9,588	15,927	4,262	85,323
1896-97 - - - - -	9,948	16,952	4,387	86,019
Increase in 1896-97 over 1895-96.	360	1,025	125	696

YEAR.	Letters (including Postcards).	Newspapers.	Parcels.	Book and Pattern Packets.	TOTAL.
	No.	No.	No.	No.	No.
1895-96 - -	364,168,006	28,928,622	2,577,083	18,196,529	413,870,240
1896-97 - -	386,950,289	29,778,291	2,708,769	19,341,398	438,778,727
Increase - -	22,782,263	849,669	131,686	1,144,869	24,908,487

In addition to the 86,019 miles of Imperial Postal lines shown in the statement, there were 35,913 miles of District Post lines, and 1,309 miles of political and military lines administered by the Imperial Post Office, so that the total length of the lines over which mails were conveyed was 123,241 miles at the close of 1896–97, as compared with 122,282 miles at the close of the previous year. The increase in postal lines was greatest under railway and mail cart lines. The large increase (539 miles) under railway lines was chiefly due to the opening of the Assam-Bengal Railway and to the extension of the East Coast Railway and the Mu Valley Railway. The increase (560 miles) under mail cart lines was due mainly to the establishment of new horse and mule lines in Burma, and the substitution of this means of conveyance for runners on some existing lines in that province. There was a decrease of 252 miles under steamer lines, due, in great part, to the closing of the steamer service between Rampur and Silchar in consquence of the opening of the Assam-Bengal Railway.

The general correspondence returns, of which a summary is given above, show an increase of about 25 millions of articles carried by post in 1896–97,

POST OFFICE.

as compared with 1895–96. Of this increase over 7¼ millions were due to letters, and nearly 13¼ millions to postcards, which represent nearly one-half of the entire number of communications passing through the post, and which, in Bengal, Bombay, the Punjab, and Eastern Bengal, exceeded the total number of paid letters.

The total number of articles sent out for delivery, including money orders, was nearly 441 millions, of which 99·06 per cent. were delivered; 3,864,427 articles reached the Dead Letter Offices for disposal; of this number, 695,784 articles were disposed of by being re-directed, and then delivered to the persons to whom they were addressed, while 2,171,285 were returned to the senders, and 997,358 could not be disposed of. A large proportion of these articles were from their nature incapable of either delivery or return.

A large amount of valuable property was, as usual, found in letters and other articles posted without address or with addresses so incorrect or incomplete that the covers had to be opened in order that the senders might be traced. In articles opened in some of the Dead Letter Offices were found hundis, cheques, bills of exchange, currency notes, and other property amounting in value to Rs. 388,458, 957*l.* 6*s.* 4*d.*, 357 francs, 50 dollars, 130 cents, and 8 other foreign coins. The greater part of this property was successfully delivered to the owners.

In the Bombay Presidency, including Sind, each person received on an average over three postal articles, in Burma and the Punjab about two, and in Bengal, Madras, and Assam about one and a-half. The number of postal articles per head of population for the whole of India was 1·54, against 1·44 in 1895–96.

The letters and postcards despatched from India to the United Kingdom in 1896–97 are estimated at 3,037,334, against 2,983,379 in 1895–96, or an increase of 1·81 per cent. Those received in India from the United Kingdom are estimated at 3,174,487, against 3,123,485 in the previous year, or an increase of 1·63 per cent.

The newspapers, book-packets, and samples despatched home from India show an increase of 4·37 per cent.; and the number of such articles received in India from the United Kingdom an increase of 21·73 per cent., or over a million. These figures are, however, founded on a record of weight taken only twice a year, and the packet mail particularly is liable to great fluctuations, owing to the inclusion or non-inclusion of large quantities of pamphlets and circulars for distribution in India.

The statistics of correspondence exchanged between India and foreign countries and colonial administrations are taken only once in three years, alternately in May and November, and were last recorded in May 1896.

The parcels exchanged with the United Kingdom formed more than 72 per cent. of the whole foreign parcel traffic. There was an increase of 2,520 in the parcels received from the United Kingdom through the British Post Office and an increase of 559 in those received through the agency of the Peninsular and Oriental Company. The number of those sent home through the British Post Office and the Peninsular and Oriental Company taken together increased by 603. There was but little variation in the number of parcels exchanged between India and continental Europe; but there was an increase of 16·1 per cent. in the parcels exchanged between India and non-European countries. The parcel exchange with Ceylon continued to increase satisfactorily.

The receipts from the insurance of letters and parcels were Rx. 23,495, as compared with Rx. 23,128 in the preceding year. The number of insured articles was greater by 1·10 per cent., and the value by 1·09 per cent.

The average value for which each article was insured was, in the case of letters Rs. 259, as compared with Rs. 262 in the previous year, and in that of parcels Rs. 314 against Rs. 311 in 1895–96.

The number of claims for compensation preferred in respect of insured articles was 54, as compared with 18 in the preceding year. This increase was due to exceptional causes. Twenty claims arose out of losses by highway robbery of mails, in nearly all cases in Native States; and in 1895–96, no such

claims were preferred. Twenty-one claims had to be met on account of insured articles lost in an accident which occurred on April 27th, 1896, to the mail train between Sikandarabad and Dadri on the East Indian Railway, when the Post Office van was burnt, owing to an explosion of fire-works in an adjoining third-class carriage. Out of the 54 claims 46 were admitted; but in only five of these 46 cases was the loss caused by fraud or negligence on the part of servants of the Post Office. The amount paid as compensation was Rx. 1,074, being 4·57 per cent. of the insurance fees, as compared with Rx. 505 and 2·18 per cent. in 1895-96. POST OFFICE.

The number of articles sent by the value-payable post was over two millions, and the amount declared for recovery by the Post Office from the addressees was Rx. 2,303,980, the commission on which was Rx. 41,184. There was an increase of 6·99 per cent. in the number of articles, of 6·38 per cent. in the value specified for recovery, and 7·19 in the commission realised. Nearly two-fifths of the entire business of the year was, as in previous years, transacted in the Bengal circle, which practically means Calcutta. Under the arrangement with Ceylon for the transaction of value-payable business, which was introduced in 1891, 21,713 articles, of the aggregate value of Rx. 19,807, were despatched from India to Ceylon, as compared with 18,464 articles and Rx. 17,672 of value in the preceding year. The value-payable system has not yet been introduced between India and any other foreign country.

The number and value of inland money orders issued in India, including telegraphic money orders, but excluding transactions with Native States, increased respectively from over 10 millions and Rx. 20,620,000 in 1895-96, to nearly 11 millions and Rx. 21,973,000 in 1896-97; and the commission realised, from Rx. 260,000 to nearly Rx. 280,000. The average value of an inland money order was Rs. 20. 1. 1., against Rs. 20. 8. in the previous year.

A check to the revenue money order system was caused by the prevalence of famine in the North Western Provinces and Oudh, and in the Central Provinces. In the Punjab also there was again a decrease in the value of revenue money orders; but in the Lower Provinces of Bengal, including Eastern Bengal and Bihar, there was a slight increase in the number and value of these orders. The system of remitting miscellaneous Government dues through the agency of the Post Office continued to make progress in the Lower Provinces of Bengal, and in the North Western Provinces and Oudh the progress reported last year was sustained. It was introduced in August 1896 into Burma at the request of the Forest Department, and is confined to the Shwebo District.

The number and value of rent money orders during the year under review again fell off in the North Western Provinces and Oudh, and in the Central Provinces; but there was an increase in the Lower Provinces of Bengal.

In the money-order transactions with Native States the number and value of the issues in those States increased respectively from 72,948 and Rx. 183,140 to 80,935 and Rx. 192,853; and the number and value of payments in the States from 36,357 and Rx. 112,222 to 44,630 and Rx. 126,606.

The number of telegraphic money orders issued in 1896-97 was 145,849, for Rx. 1,732,736, as compared with 130,337 orders for Rx. 1,509,152 in the preceding year. The average value of a telegraphic money order was Rs. 118. 12. 10., against Rs. 115. 12. 7. in 1895-96. As in previous years, this mode of remittance was more freely used in Burma than elsewhere, the orders issued from that Province being 43·41 per cent. of the total number for the whole of India; and the payments in Burma being larger in amount than in any other Province, excepting only Madras.

The foreign money orders for and from the United Kingdom, most of the British Colonies and possessions, foreign European countries and most of their colonies and possessions, and Egypt, are issued in sterling, payments being made by the remitters and to the payees in India at the rates of exchange fixed by the Post Office from time to time for this purpose. The number of such orders issued rose from 54,999 in 1895-96 to 59,654 in 1896-97, and the value from 173,739*l.* to 206,507*l.*, while the drawings of foreign countries upon India

POST OFFICE.

increased in amount from 152,288*l.* to 186,896*l.* In 1895–96, of the total sterling money-order transactions (330,027*l.*), no less an amount than 287,425*l.* was with the United Kingdom and British Colonies, and in 1896–97 the proportion was 263,557*l.*, out of 393,403*l.*

The drawings of the United Kingdom upon India decreased from 97,562*l.* in 1895–96 to 78,921*l.* in 1896–97. This decrease was due, not to any falling off in the money order transactions with the mother country, but to the fact that, in the former year, those transactions included a large number of orders drawn in the Cape Colony and in British Guiana upon India, which are now advised direct to that country.

The average value of a sterling money order issued by India was 3*l.* 9*s.* 3*d.* as compared with 3*l.* 4*s.* 7*d.* in 1895–96, and that of such a money order paid in India was 5*l.* 6*s.* 8*d.* as compared with 5*l.* 7*s.* 5*d.* in the preceding year.

The average of the rates of exchange for sterling money orders in force in 1896–97 was 1*s.* 2½*d.* per rupee, as compared with 1*s.* 1½*d.* in the previous year.

The money order transactions with Ceylon (including telegraphic money orders) continued to expand. The number and value of orders increased, as regards orders issued by India, from 4,230 and Rx. 15,275 in 1895–96 to 5,007 and Rx. 18,436, and, in the case of those paid in India, from 54,864 and Rx. 188,043 to 65,403 and Rx. 232,210. One of the most noticeable features of the year's money order transactions is the increase in the drawings by British East Africa on India, from 1,028 for Rx. 9,241 to 7,273 for Rx. 44,452. This increase is to be attributed to the fact that large numbers of natives of India are now employed on the construction of the Uganda Railway and otherwise in British East Africa.

The average value of a foreign rupee money order issued by India in 1896–97 was Rs. 37. 9. 2. as compared with Rs. 38. 2. 4. in 1895–96, and that of an order paid in India was Rs. 42. 1. 1. as compared with Rs. 41. 10. 1 in the preceding year.

At the close of the year there were 6,420 offices performing savings bank business, against 6,343 in the preceding year, thus showing an increase of 77 offices during the year. The number of accounts in the Post Office savings banks rose from 653,892 in 1895–96 to 713,320 in 1896–97; the deposits from Rx. 4,734,435 to Rx. 5,661,098; the withdrawals from Rx. 4,361,115 to Rx. 5,365,463; and the interest from Rx. 267,195 to Rx. 301,299. The balance at the credit of depositors at the close of 1896–97 stood at Rx. 9,639,241, against Rx. 9,042,307 at the close of 1895–96. The average balance at the credit of each depositor was Rs. 135.13, as compared with Rs. 138.28 in the previous year. Of the total number of accounts nearly 91·12 per cent. were held by natives. The increase of 59,428 in the number of deposits was partly due to the transfer during the year of 23,177 accounts from the Presidency Savings Banks to the Post Office Savings Banks.

During 1896–97 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was Rx. 83,430, against Rx. 14,650 in the preceding year; and the balance of securities in the hands of the Comptroller General at the close of the year was Rx. 60,560, compared with Rx. 46,900 on the 31st March 1896. The increase in the number of such investments is partly due to the comparatively favourable rate at which Government securities were selling at the close of the year; but the large increase in their value was mainly due to investments on behalf of the East Indian Railway Provident Fund, amounting to Rx. 50,000 in nominal value.

The system of receiving salt revenue at post offices remained in force throughout the year at certain post offices in the North-Western Provinces and Oudh, Punjab, Central Provinces, and Rajputana; but, as in the previous three years, the transactions were so few as to be little more than nominal.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout the greater part of India. The amount

supplied for sale in 1896-97 exceeded by over 229 lbs. the amount supplied in the previous year. The small increase in this branch of postal business, notwithstanding the extension of its field of operation, may be fairly attributed to the fact that the year under review was one of scarcity and high prices. POST OFFICE.

The system of paying the pensions of Native Army pensioners through the agency of the Post Office, in the Punjab, continued to work satisfactorily. The total number of pensioners paid during the year was 24,112, and the amount paid to them was Rx. 174,633.

Arrangements have been in force for some years past for the issue by the Post Office of life insurance polices and contracts for monthly allowances in favour of servants of the Postal and Telegraph Departments. The scheme for monthly allowances is still practically inoperative, and there were only nine contracts in existence at the close of the year. On the other hand, the life insurance scheme has proved very popular. During the year under review, 223 new polices for the aggregate amount of Rx. 29,630 were issued, and 30 claims, amounting in all to Rx. 4,685, were paid on the death of insurants. Since the scheme was started on the 1st of February 1884, 2,675 lives have been insured; and, at the close of 1896-97, there were 2,233 active policies in existence (1,768 held by Post Office servants and 465 by servants of the Telegraph Department), and the aggregate sum insured was Rx. 313,320. During 1896-97 and the preceding year, no advantage was taken by women employed by the Postal and Telegraph Departments of the extension to them of the benefits of the schemes referred to above.

Among the principal events of the year from a postal point of view were:—

(1) The amalgamation of the postal systems in the Native States of Bhartpur and Khairpur with the Imperial Post Office.

(2) The amalgamation of the Presidency Savings Banks with the Post Office Savings Banks.

(3) The extension of the system in force in the Punjab of sending copies of documents from courts by value-payable post.

(4) The successful introduction in Calcutta and the districts of Khulna and the 24-Pergunnahs, of a system of taking the thumb impression of illiterate payees on money orders in place of their marks.

(5) The general adoption of clear and distinct hour type in the dated stamps of Post Offices in view to the checking of delays in transit.

(6) The amendment of the Post Office Act in order to provide legal means for the recovery from addressees of postal parcels of the Customs duty assessed on them.

(7) The running of a weekly special train with the inward foreign mails from Bombay to Calcutta viâ Jubbulpore, covering the distance in about 40 hours, and starting from Bombay five hours after the mail steamer is signalled at Bombay.

(8) The extension of the foreign parcel post to Paraguay, Venezuela, Japan, German New Guinea, Cochin China, and several British colonies.

(9) The suspension, owing to quarantine restrictions, of the foreign parcel post to Malta, Gibraltar and Tangier, France, Portugal, Madeira and the Azores, and Egypt.

(10) The prohibition, owing to quarantine restrictions, of the transmission, by the foreign post, of certain classes of articles, such as worn clothing, bedding, rugs, &c.

TELEGRAPHS.

TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran, for which, as usual, a separate account is given. The system now consists of 48,584 miles of line, 148,136 miles of wire, and 269 miles of cable.

During the year Rx. 173,940 were added to the capital expenditure, of which the greater portion was for new lines, the net additions to the system during the year comprising 2,209 miles of line and 5,210 miles of wire. The total capital outlay at the close of the year stood at Rx. 6,050,798.

The number of telegraph offices open to the public at the end of the year, including railway and canal offices, was 4,252, of which 3,169 were maintained by the Department. The net addition to the number of offices during the year was 206.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication:—

	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices Opened.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	TOTAL.
	Rx.						
Up to beginning of 1892-93 -	5,218,380	38,625	120,159	253	1,001	1,395	2,396
During 1892-93 - - -	216,281	2,405	6,092	21	99	58	157
„ 1893-94 - - -	225,437	1,677	8,004	-	124	58	182
„ 1894-95 - - -	78,330	1,941	4,001	—3	138	10	148
„ 1895-96 - - -	138,428	1,727	4,670	—8	99	12	111
„ 1896-97 - - -	173,040	2,209	5,210	6	102	73	175
To end of 1896-97 - -	6,050,798	48,584	148,136	269	1,563	1,606	3,169

A general view of the operations of the Department in 1896-97, in comparison with the results of the four previous years' working, will be gained from the following statement:—

YEAR.	Number of Messages during Year.	Gross Receipts, including State, but excluding *pro formâ* Revenue.	Charges.	Net Receipts.	Percentage of Net to Gross Receipts.	Return on Capital.
		Rx.	Rx.	Rx.		
1892-93 - -	3,981,411	753,172	515,699	237,472	31·5	4.37
1893-94 - -	4,184,790	791,852	530,476	261,376	33·0	4·61
1894-95 - -	4,391,226	792,510	569,321	223,188	28·2	3·89
1895-96 - -	4,736,734	886,072	578,373	307,699	34·7	5·24
1896-97 - -	5,077,584	884,049	621,506	262,542	29·7	4·34

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1896-97 the receipts of the Department were sufficient to cover both the working expenses and the amount expended on capital account, and there was therefore no net charge on Government revenues.

Compared with the previous year there was a small decrease in the total revenue from messages, though not in the total number of messages sent. Working expenses increased considerably during the year under review. This was due partly to the rapid growth of the operations of the Department, and partly to large expenditure on special repairs. Heavy renewals of posts and wires on many of the main lines constructed 30 and more years ago, are now becoming necessary, and will increase the cost of maintenance in the future.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively :— TELEGRAPHS.

Class of Telegrams.	1895-96.		1896-97.	
	No.	Value.	No.	Value.
		Rx.		
State, Inland - -	603,366	126,166	599,890	112,350
„ Foreign - -	6,985	6,327	8,722	6,751
Total State -	610,351	132,493	608,612	119,102
Private, Inland -	3,491,571	347,531	3,786,938	373,842
„ Foreign -	634,812	227,534	682,034	210,411
Total Private -	4,126,383	575,066	4,468,972	584,253
GRAND TOTAL -	4,736,734	707,559	5,077,584	703,356

The increasing use of telegraphy by the Indian public is measured by the growth of the inland private traffic, and it is satisfactory to find that in the year under review this class of traffic, when compared with the figures of the preceding year, increased by 8 per cent. in number and 7·5 per cent. in value The following statement shows the development of the revenue from the inland private traffic for the past 10 years :—

	Rx.
1887-88 - - - - - - - -	198,181
1888-89 - - - - - - - -	223,151
1889-90 - - - - - - - -	227,830
1890-91 - - - - - - - -	245,328
1891-92 - - - - - - - -	269,542
1892-93 - - - - - - - -	288,856
1893-94 - - - - - - - -	305,229
1894-95 - - - - - - - -	321,597
1895-96 - - - - - - - -	347,531
1896-97 - - - - - - - -	373,842

In foreign private telegrams there is also an increase over the figures for the previous year, of 7·4 per cent. in number, but the value showed a decrease of 7·5.

The revenue from trans-Indian traffic rose to Rx. 99,819 in the year under review, thus exceeding by Rx. 26,664 the figure of Rx. 73,155, at which the revenue stood in 1890-91, prior to the reduction in the transit rates.

The messages sent in the service of the State constituted 11·99 per cent. of the whole number, and the payments made by the Government on account of them made up nearly 17 per cent. of the total message revenue of the Department.

The following figures show the division of the inland traffic into the three classes of Urgent, Ordinary, and Deferred, during the last two years :—

	PERCENTAGES.					
	Urgent.		Ordinary.		Deferred.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
State - - - - - -	13·00	8·77	22·07	27·40	64·93	63·83
Private - - - - - -	6·01	5·80	40·20	40·58	53·79	53·62
Press - - - - - -	7·19	5·73	18·55	12·57	74·26	81·70

TELEGRAPHS.

The average charge for an inland private telegram is 15 annas and 5 pies, and the average length may be taken as 10 words, with free address of at least eight words.

The speed of transmission was on the whole well maintained during the year. There was a marked improvement in this respect between Calcutta and Rangoon, and some falling off, owing to temporary causes, on other main routes.

The number of complaints received relating to the Indian Telegraph Department was 1,774, equivalent to 0·032 per cent. of the total number of paid messages; 968 of these were admitted. Of those admitted, 190 applied to non-delivery, 261 to delay, and 283 to mistakes. The number of messages that for various causes could not be delivered amounted to 17,102, equivalent to 0·275 per cent. of the total number received for transmission.

The total number of interruptions to communications amounted to 2,295, which shows a slight increase over the previous year, there being an increase also in the total duration of the interruptions.

The number of telegraphic money orders rose to 145,833 from 129,912 in the previous year. In addition to the figures given above the total number of orders sent to and received from Ceylon during the year under review amounted to 12,112 as compared with 8,183 during 1895–96, and 4,546 during 1894–95.

The Inland Press telegrams sent numbered 26,462, of the value of Rs 1,00,939, against 24,892, valued at Rs. 96,168, in the previous year. The Foreign Press messages numbered 3,601, and the Indian share of the charges thereon amounted to Rs. 20,330.

As regards electrical improvements, experiments in simultaneous Morse and vibrator working over a single wire were still being carried on. The arrangement devised by Mr. Melhuish, by means of which intermediate offices can be worked without alteration of connections on long duplex lines proved of great assistance during the monsoons when the cables across the Ganges near Patna failed, and all Tirhut traffic had to pass *viâ* Bankipore, the Mokameh cable, Mozufferpore and Chupra.

On the 31st December 1896 there were 1,676 subscribers and 1,655 exchange connections to the Telephone Companies at Bombay, Calcutta, Kurrachee, Madras, Moulmein and Rangoon. There were also 36 exchanges and 296 exchange connections under the control of the Telegraph Department.

The telegraph line from Taungyi to Kengtung, 235 miles, of which 123 miles were erected during 1895–96, was completed during the year under review.

The gutta-percha Indo-Ceylon cable across Palk straits was entirely replaced by a brass taped cable, which was brought into use on 15th March 1897.

The telegraph lines in Kashmir which were being managed and worked by the Indian Telegraph Department have been finally and completely taken over as part of the Imperial system.

Mr. S. P. W. V. Luke, C.I.E., late Deputy Director General of Telegraphs, and Mr. B. T. Ffinch, C.I.E., Director-in-Chief, Indo-European Telegraph Department, were deputed to represent the Government of India at the International Telegraph Conference held at Buda-Pesth during June and July 1896.

The principal changes affecting India adopted by the Conference are summarised below. The changes took effect from 1st July 1897 :—

(i) An increase in the length of a permissible word in telegrams wholly in plain language, as distinguished from telegrams wholly in code, or partly in code and partly in plain language, 15 letters being allowed as the maximum, instead of 10 as heretofore.

(ii) An increase in the number of figures and signs permissible as one word when written in series, as regards every class of telegram, five characters being counted as a word, in place of three as heretofore.

(iii) The counting as one word of the Sender's Special Instructions, if written in the authorised abridged form.

(iv) The exclusion of Sundays in the limit of 72 hours allowed for obtaining or giving corrections to telegrams by means of Paid Service Advices.

(v) Substantial reductions in the rates between India and East and South Africa, including Mauritius, as also between India and the Straits, China and Japan. TELEGRAPHS.

The obligatory use of the Berne Official Vocabulary was also indefinitely postponed.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian Government system at Karachi is known as the Indo-European Government Telegraph Department, and consists of two parts, one, designated the Persian Gulf Section, extending from Karachi to Bushire, with a branch to Fâo, where a connection is made with the Ottoman Government line; and the other, called the Persian section, extending from Bushire to Teheran. It comprises 1,719 knots of cable, 1,377 miles of line, and 3,424 miles of wire, exclusive of the Persian Government line from Teheran to Mashed, 568 miles, which is maintained by the Department. INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, was re-transferred to London, with effect from 1st April 1893. It has been found convenient to maintain separate accounts for this Department, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked, and the influences affecting the traffic are completely different from those prevailing on the Indian telegraph system generally.

The capital account of the Department, which stood at Rx. 1,148,920 at the beginning of the year under review, amounted at its close to Rx. 1,154,977, an increase of Rx. 6,057 which was due to outlay on construction of quarters for the staff at Teheran.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

Year.	Total Capital Outlay.	Gross Receipts.	Expenditure.	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	Rx.	Rx.	Rx.	Rx.		
1892-93 - - - -	1,145,969	130,251	86,484	43,767	3·80	66·3
1893-94 - - - -	1,144,619	135,085	86,060	49,025	4·28	63·7
1894-95 - - - -	1,144,288	157,042	82,689	74,353	6·50	52·6
1895-96 - - - -	1,148,920	167,008	81,745	85,263	7·42	48·9
1896-97 - - - -	1,154,977	148,450	77,147	71,303	6·17	51·9

There was some falling off in the Indian traffic during the year under review. This was no doubt owing to the famine and plague in India. The earnings of the Department were also adversely affected by the higher rate of exchange prevailing during the year.

Owing to the Joint Purse Arrangement which has existed since 1878-79 between the Department and the Eastern and Indo-European Telegraph Companies; the amount shown as gross receipts does not correspond with the actual traffic earnings of the Department, which in 1896-97 amounted to Rx. 192,048.

The Indo-European route actually carried more traffic than its fixed share under the Joint Purse Agreement, with the result that 16,747*l.* had to be refunded by the Department to the other partners, against 8,695*l.* in the previous year. There was also a further refund under the Australasian Message Fund Agreement.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

From the 1st January 1894 a Supplemental Agreement came into force, which gave the Department a larger share in the receipts from Indian traffic. The proportions in which the total receipts are divided between the different parties to the Joint Purse Agreement are shown in the following statement:—

Administration.	Indian Receipts.		Trans-Indian Receipts.
	To 1894.	From 1894.	
Eastern Telegraph Company - -	60·39	59·82	80·53
Indo-European Telegraph Company -	22·34	22·12	12·03
„ „ Department	17·27	18·06	7·44

The general working of the lines and cables in Persia and the Persian Gulf continues to maintain its high standard of excellence. There was a decrease in the average rate of transmission of messages between Karachi and Teheran in the year under review. This was partially due to the bad weather on the Persian section, and largely due to the interruptions of the Eastern route for six days in March 1897. The accuracy of transmisson is shown by the fact that the percentage of errors was only 0·096 against 0·171 per cent. in the previous year.

During January 1897 a serious riot occurred at Reshire, near Bushire, and some bench marks, which had been fixed near the telegraph office by officers of the Indian Survey, were destroyed by the mob, who attributed the prevailing drought to their existence.

For some time after the assassination of the Shah there was much disturbance and various cases of outrage, arising from the anarchy which prevailed in Southern Persia and Perso-Beluchistan.

CHAPTER XII.

EDUCATION, LITERATURE, AND THE PRESS.

EDUCATIONAL institutions in India are of two classes— EDUCATION.

(1.) Those in which the course of study conforms to the standard prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the primary system of Madras, Bengal, and Burma.

(2.) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz.:—

(1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(2.) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is an optional subject only, they are reckoned as Vernacular.

(3.) Colleges.

The gross expenditure on education in Bengal (Rx. 1,096,863) exceeded that of 1894 by 2·5 per cent. This sum was contributed from the following sources in the proportion set against each:—provincial revenues, 25·5 per cent.; district funds, 9·8 per cent.; municipal funds, under 1 per cent.; fees, about 45 per cent.; all other sources (including subscriptions and endowments) about 19 per cent. The expenditure was thus distributed:—upon institutions managed by Government, 19·3 per cent.; upon those managed by district or municipal boards, less than 1 per cent.; upon aided schools, 49·5 per cent.; upon unaided schools, 17 per cent.; the balance (about 13 per cent.) being the cost of inspection (Rx. 62,497), scholarships, &c. Bengal.

Distributing the expenditure in a different manner, it appears that Rx. 108,853, or 10 per cent. of the total amount, was spent upon university education; Rx. 403,762, or 39 per cent., upon secondary, and Rx. 319,911, or 28·5 per cent., upon primary education; Rx. 46,088, or 3·5 per cent., upon schools for special instruction; Rx. 71,355, or 6·5 per cent., on buildings and furniture, and Rx. 146,982, or 12·5 per cent., on inspection, &c.

The number of pupils in public institutions is returned as 1,548,593, a slight increase on last year, but the number of pupils in private institutions fell, by nearly 10 per cent., to 126,812. There was a net decrease of 2,227 in the total number of pupils under instruction. Taking the population of school-going age at 15 per cent. of the whole population, the total of 1,674,775 represents 15·2 per cent. of the total population of a school-going age. More than 93 per cent. of the scholars were males, and less than 7 per cent. females, representing respectively 28·5 per cent. of the boys, and 2 per cent. of the girls, of a school-going age. These percentages are practically the same as in 1895-96.

The number of public institutions decreased by 1,469 to 55,640, and the number of private institutions by 1,537 to 12,207. Thus the effect of the famine on education was to reduce the number of institutions by 3,006, but the

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number of pupils by only 2,227. All classes of public institutions, except primary and special schools, gained in number and strength.

The number of special schools (198), in spite of a loss of four institutions, showed an increase of 187 pupils. The number of upper and lower primary schools fell by 1,490 to 62,854, but the number of pupils rose by 67,188 to 1,307,867.

The number of secondary schools increased (by 4½ per cent.) to 2,532; and the number of their pupils (by 8 per cent.) to 224,094, the increase being most marked in the case of English secondary schools.

Of the 38 arts colleges (one less than in the preceding year), 11 are supported by Government, one by municipal funds, seven are aided, and 19 unaided. Amongst the arts colleges are included three colleges for females.

The number of candidates at the first arts examination increased slightly, but the percentage of those successful declined from 39 to 37.

It was found that a large number of candidates for the entrance examination of the Calcutta University make deliberate misstatements of their age, thereby securing corroboration from the university registers for subsequent falsehoods which they employ when attempting to enter the public service. Headmasters have been directed to examine the statements of age which their pupils offer.

Medical schools decreased in number from 12 to 10, and pupils from 1,854 to 1,482. But the Government Medical College at Calcutta continues to make satisfactory progress.

There has been an increase in the number of training schools, and the students attending them. The addition of an English department at five training schools, for the purpose of training teachers for English secondary schools, has had a somewhat disappointing result, only six candidates out of 72 obtaining certificates.

The Sibpur Engineering College was maintained in a high state of efficiency, and an agricultural class will shortly be attached to it.

A veterinary school has been established by Government at Belgatchia, near Calcutta.

The three Government survey schools continue to work satisfactorily. The course of study at the Government School of Art has been revised, with gratifying results.

As regards female education, the number of girls' schools decreased by 138 to 3,218, and that of their pupils by 761 to 65,213.

The number of Muhammadan pupils in public institutions decreased by 2 per cent. to 397,554, and in private institutions by 12 per cent. to 79,465, the net decrease in the number of pupils being 17,275.

Special attention has been paid to the attempt to establish primary education among the wild tribes of the forests and hills. The scarcity, however, has caused the attendance to fall off, while one forest-tribe, the Bhuinyas of the Keonjhar State, regarding police and education as two new forms of oppression, have burned the local schoolhouses.

The total number of educational institutions in the province (67,487), is equivalent to 28·4 institutions for every hundred towns and villages.

North-West Provinces and Oudh.

It is still the case that the North-West Provinces and Oudh are the most undeveloped section of India with respect to education. The percentage of children of school-going age (who are assumed to form 15 per cent. of the total population) actually at school is only 5·02, which, though an improvement on last year's figures (4·28), is still the lowest in India.

The primary schools are especially backward, but some improvement in these institutions is reported from Oudh.

The chief difficulties in the way of educational improvement are financial. At present the proportion of the general expenditure devoted to education is only 4·07, the lowest in India, representing only 8½ pies per head of the population of the provinces. To raise the standard to the level of the Punjab, the educational expenditure should be doubled. In this connection it may be mentioned that, of the sum of Rx. 7,500 set apart for grants-in-aid to primary schools, only Rx. 5,174 was expended.

The gross total expenditure of the year was Rx. 342,205, a decrease of 3·6 per cent. on the expenditure of 1895–96. Of this sum 57 per cent. was met from the public revenues, 4 per cent. from municipal funds, 23 per cent. from

fees, and 16 per cent. from endowments, subscriptions, &c. The distribution of the expenditure was as follows:—on colleges, 20 per cent.; on secondary schools, 34·8 per cent.; on primary schools, 41·5 per cent.; on special institutions, 3·7 per cent. EDUCATION.

The direct expenditure amounted to Rx. 250,967 (a decrease of 7 per cent.), and the indirect to Rx. 91,328 (a rise of 8 per cent.).

The total number of scholars was 352,729, representing, as stated above, only 5·02 of the estimated population of school-going age. Of these, 96 per cent. were boys, representing 9·26 per cent. of the boys of school-going age. The girls (4 per cent. of the scholars) represented only ·46 of the estimated female population of school-going age.

The number of pupils in public institutions was 281,218 (a rise of 28 per cent.), and in private 71,511 (a fall of 2½ per cent.).

The total number of institutions was 12,498 (an increase of 9 per cent. on last year), consisting of 6,868 public institutions (29 per cent. more), and 5,630 private (14 per cent. less).

As regards the arts colleges, the average cost of each student is Rx. 21. The income from fees has increased greatly, but it is still less than half the Government expenditure on these colleges. The number of candidates for B.A. has increased, though there have been even fewer aspirants to the degrees of M.A. and D.Sc.

Of the Anglo-vernacular schools it is reported that, although the fees have been raised, the number of pupils learning English has increased. There has been a very slight decrease in the number of pupils in vernacular schools. Attention is being paid to drill and other physical exercises.

With regard to the new grants-in-aid to primary schools, existing schools, when deserving, are assisted from the grant, as this course is thought preferable to opening new schools. But the difficulty is that many of the schools are not worthy of support.

The district boards, speaking generally, have not, when left to themselves, shown the faintest symptoms of an intelligent interest in education.

The Industrial School at Lucknow and the Agricultural School at Cawnpore continue to do excellent work.

The study of Sanskrit languishes, because the language is of no practical use in official life, while Arabic is even more neglected.

Steps have been taken to improve the training of teachers for Anglo-vernacular schools, but much remains to be done. In these schools the pupils are now compelled to pass a certain standard in the vernacular before beginning to learn English.

There has been some advance in female education, the number of pupils now amounting to 13,935.

Of the total number of pupils in institutions of all kinds, 21·42 per cent. are now Muhammadans, the figures indicating a considerable increase, both absolutely and in proportion to other classes.

The total expenditure on education in the Punjab was Rx. 307,271, contributed in the following proportions:—from provincial revenues, 23·8 per cent.; from local funds, 21·0 per cent.; from municipal funds, 10·9 per cent.; from fees, 25·9 per cent.; from other sources (including an Imperial grant of 1½ lakhs), 18·4 per cent. PUNJAB.

Of this sum about 7·8 per cent. was spent on art colleges, 35·9 per cent. on secondary schools, 18 per cent. on primary schools, 4·9 per cent. on special institutions, 5·7 per cent. on building and furniture, and 27·8 per cent. on direction, inspection, and other charges. The total expenditure is about 1½ per cent. larger than the figures of last year, the increment falling mainly under the heads of fees and "other sources."

The number of public institutions (3,144) fell by five, but the number of pupils in them rose by 1,383 to 183,738.

The 5,363 private institutions (151 less than last year) were attended by 82,184 scholars (a fall of 1,076). The change in the figures is to some extent due to the fact that all schools examined for grants are now classed as "public."

The total number of scholars (265,922 in 8,507 institutions of all kinds) represents 8·49 of the total population of school-going age.

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There are 315 secondary boys' schools, with 58,590 pupils, 2,453 primary schools with 108,315 pupils, and 18 special institutions with 2,155 pupils. The boys at school represent 14·49 per cent. of the male population of school-going age.

The 11,345 girls, who are divided amongst 328 institutions (241 girls being at special institutions), represent 1·47 per cent. of the female population of school-going age. For the purpose of training female teachers, "normal classes" have now been established in connection with the ordinary schools.

The eight arts colleges make satisfactory progress, but the Oriental College, Lahore, does not increase in numbers.

Throughout the boys' schools increased attention is being paid to physical exercises.

As regards race and creed statistics, the number of Muhammedans at school and college (128,537) represents only 12·71 per cent. of those of school-going age, whereas the Hindus are estimated at 16·2 per cent., and the Sikhs at 17·79 per cent.

Burma.

In Burma the total expenditure for the year 1896–97 amounted to Rx. 130,343, showing a decrease of over 2 per cent. on that of 1895–96. This decrease is due chiefly to the reduction of the grants-in-aid to primary schools, owing to want of funds. The money was expended as follows:—on arts colleges, 5·6 per cent.; on secondary schools, 43·9 per cent.; on primary schools, 17·8 per cent.; on special institutions, 7 per cent.; on buildings and furniture, 8·7 per cent.; on direction, inspection, and miscellaneous charges, 17 per cent.

The expenditure was contributed from the following sources:—provincial revenues, 40·92 per cent.; local funds, 11·03 per cent.; municipal funds, 12·52 per cent.; fees, 18·63 per cent.; other sources, 16·90 per cent.

The total number of scholars was 255,157 (an increase of 1,508 on last year), divided amongst 15,820 institutions (88 more than last year). The public institutions (5,235) gave instruction to 149,310 pupils, the private (10,585) to 105,827 pupils.

The private schools are all "elementary"; the public institutions include two arts colleges, 260 secondary schools, and 4,932 primary schools.

The proportion of pupils to the total population of school-going age is nearly 25 per cent. There are 226,072 male pupils, and 29,065 females, representing respectively 38·77 (male) and 5·18 (female) of the population of school-going age. These figures compare most favourably with other provinces. The development of middle vernacular schools (which now are attended by 10,894 pupils) is most marked. It is to be noted that the monks are adopting a much more cordial attitude towards secular education.

Rangoon College has now 62 students on its rolls, and this year scored its first success in the Calcutta University B.A. Honours Examination.

As regards special races, there are at present 1,190 Muhammadan pupils in 30 schools. There are 49 Tamil schools (for the children of immigrants from Madras) with 1,173 pupils. The progress made by the American Baptist Mission amongst the Karens is gratifying, as 15,830 Karen children are now being educated in the 516 schools. On the other hand, it has not as yet been possible to do much with uncivilised tribes, like the Chins and Kachins, or to extend education to the Shan States.

The great educational difficulty in Burma hitherto, has lain in the want of proper text-books, but an improvement in this respect is now taking place. The results of the Government training schools are at present hardly adequate to their cost (Rx. 3,442 in 1896–97).

Although the school returns for this year are in themselves accurate, the only available source for the general statistics of Burma is the census of 1891, which, on account of territorial and economic changes, is not a very satisfactory index to the present conditions of the province. Thus, the percentages stated above are only approximately correct.

Assam.

The total expenditure on education in Assam was Rx. 65,086, showing an increase of 1 per cent., the whole being devoted to secondary and primary schools. This was contributed in the following proportions:—

	Per Cent.
Government	26·9
Local funds	32·5
Municipal funds	0·8
Fees	20·5
Other sources	19·3

There were 103,541 pupils, showing an increase of 3 per cent. Of these, 96,660 (an increase of 2·9 per cent.) were in the 3,225 public institutions (which are more numerous by 5 per cent.), and 6,881 in the 309 private institutions. The total number of institutions (3,534) shows an increase of 4 per cent. EDUCATION

The number of male pupils (95,148) represents 22·7 per cent. of boys of a school-going age; the 8,393 girls form 2·1 per cent. of the estimated female population of a school-going age. Female education has made steady progress.

There is no arts college in Assam, but a private unaided second-grade college has been started in Sylhet. It is reported that 155 Assamese students were, during the year, studying in universities in Bengal.

Primary education, of course, has the largest share in the public instruction, but the English secondary schools are advancing.

The number of Muhammadans at school (21,802) represents 21 per cent. of the total number of pupils.

There is an artizan school at Dibrugarh, but it only succeeds in attracting pupils by paying each a stipend. The fact is that, owing to the high wages paid for unskilled labour in Assam, there is little popular demand for technical education.

Much good work is done among the hill-tribes by missionary schools, but there is a large proportion of wild tribes in the province. Allowing for this fact, Assam compares favourably with other provinces as regards education.

The generosity of Assamese pupils in subscribing towards the famine fund, to be applied to other parts of India, calls for special notice.

In the Central Provinces the total expenditure on education during 1896–97 amounted to Rx. 105,280 (including Rx. 6,258 in Native States), contributed from the following sources:—provincial reveuues, 36·5 per cent.; local funds, 20 per cent.; municipal funds, 9·8 per cent.; fees, 11·9 per cent.; and other sources, 21·8 per cent. Of this sum 4·9 per cent. was expended on collegiate education, 27·3 per cent. on secondary; 38·5 per cent. on primary; 3·9 per cent. on special; 9·1 per cent. on buildings and furniture; and 16·3 per cent. on direction, inspection, scholarships, and miscellaneous charges. Central Provinces.

The gross expenditure shows an increase of nearly 5 per cent. The direct expenditure amounted to Rx. 77,932; the indirect to Rx. 27,347.

The total number of educational institutions is 2,524 a slight increase. All these are "public." The number of pupils (149,507) represents 7·7 per cent. of the total population of school-going age, and shows a decrease of 3 per cent. on last year's figures. The progress of education was much retarded by the famine, to which is to be attributed the decline of 6 per cent. in the number of pupils attending primary schools. But a decrease of 17 per cent. in the students at arts colleges cannot be due to the famine (since that hardly affected the well-to-do), but is more probably caused by the general raising of fees.

The males under instruction form 14·2 per cent. of the male population of school age; the females represent 1·1 per cent. of the girls. Female education is, however, making some progress, partly because the primary schoolmasters have realised that they can add considerably to their incomes by persuading friends to send their daughters to school.

General attention is now paid to physical exercises; a native system of gymnastics is being taught in primary schools, and a notable feature in these establishments is the presence of gardens cultivated by the pupils.

Of the Muhammadans of school-going age, 22·17 per cent. are at school, which compares favourably with 8·6 per cent. of Hindus. The Muhammadan pupils (10,263) form 6·8 per cent. of the total number of scholars. On the other hand few Muhammadans qualify for the public service by proceeding to the higher grades of education.

The Raj Kumar College for the sons of princes now numbers 23 pupils.

Although the year was one of severe scarcity in Berar, the progress of education was satisfactory. The total number of pupils under instruction rose 10 per cent. to 54,343, the increase taking place in the indigenous schools. Of these pupils 54,186 were in public institutions, and only 157 in private. The boys form over 93 per cent. of the pupils and 22·2 per cent. of the male population of a school-going age, constituting an increase of 2 per cent. Berar.

EDUCATION.

There were in all 1,361 institutions (of which only five are private schools), making an increase of 15 per cent. on last year's figures.

The total expenditure rose by 3 per cent. to Rx. 42,457. School fees decreased 1·2 per cent. to Rx. 5,795, but popular contributions rose 7·5 per cent. to Rx. 983.

The two high schools passed 28 (60 per cent.) of the pupils whom they sent up for the Bombay University Matriculation.

A beginning was made of private secondary schools. The primary schools made good progress, and increased attention is being paid to physical training.

The training school at Akola has been re-organised.

As regards female education, though there were two schools less than last year, the number of pupils rose by 249 to 3,722.

The number of Muhammadans at school is given as 7,461, being a gain of 228.

There are two schools for aborigines, attended by 213 pupils.

Madras.

In Madras the total expenditure on public instruction fell by 1·5 per cent. to Rx. 647,869, as compared with 1895–96. This was contributed in the following proportions:—government, 29·2 per cent.; fees, 29·4; endowments, &c., 24·3; local boards, 13·4; municipal funds, 3·7.

Of this aggregate sum, a percentage of 13·16 was spent on university education, 62·73 on general education; 7·62 on special education; 7·03 on expenses of direction, inspection, &c.; and 9·46 on furniture, buildings, and miscellaneous changes.

The total number of pupils of both sexes under instruction rose by 31,219 (or 3·7 per cent.) above last year's number to 822,853. Of these pupils, 718,305 were at public institutions, and 104,548 at private.

The number of boys under instruction (706,106) amounted to 26·7 per cent. of the male population of school-going age.

The total number of institutions rose by 3 per cent. to 26,872, showing an increase of 4 per cent. in the public institutions (which now number 21,705), and a slight increase in the private establishments, 5,167 in number.

As regards university education, there was a slight decrease in the number of candidates for arts degrees (539). The secondary schools sent up more candidates for matriculation, but passed rather fewer. But, with the exception of this point, the reports of secondary and primary education are alike excellent. The Agricultural College is now attended by 47 students.

Female education makes satisfactory progress. The number of girls in allclasses of institutions is 116,747, being 4·3 per cent. of the females of school-going age. Of these girls (whose aggregate shows an increase of 5·7 per cent. on last year's figures) more than one-half are in boys' schools. The higher education of women has not advanced much, though a few girls do attempt university examinations.

Throughout the Presidency 100,924 Muhammadans (an increase of 5 per cent.) were under instruction. An increase of 39·3 per cent. in the number of aborigines undergoing education brought them up to 1,801.

The general education reports are very satisfactory, but call for no special remarks.

BOMBAY.

The progress of education in the Bombay Presidency was disastrously affected by the prevalence of plague and famine. The plague attacked the cities and larger towns chiefly, and thus led to a much diminished attendance in Government and municipal schools, while the Fergusson, Sind, and Maharashtra Colleges, the Veterinary College in Bombay, and most of the high schools in that city, were closed before the end of the year. In Poona and the Central Division the number of children attending the high schools dropped by one-half. On the other hand, primary education suffered in the distressed districts of the Deccan and the Southern Maratha country. But in other parts of the Presidency normal progress was made.

The public and private institutions in the Presidency numbered 12,934, with 672,705 pupils, as against 12,938, with 704,217 pupils in 1895–96. There is thus a decrease of 4·5 per cent. in the number of pupils. Omitting those private institutions which were not under Government inspection, the total number of which was returned as 2,832, with an aggregate of 70,779 pupils, showing a slight decrease on last year's statistics alike in number of schools and

pupils, there were 530,873 boys (a decrease of 3·8 per cent.), and 71,053 girls (a decrease of 6 per cent.) under instruction in public institutions. The total number of public institutions increased by 20 to 10,102. EDUCATION.

Taking girls and boys together, there was a decrease of 3·9 per cent., the number of pupils of both sexes in public institutions amounting to 601,926, while the average monthly number on the rolls rose from 603,635 to 620,330, and the average daily attendance from 453,376 to 471,282.

The loss of pupils occurred chiefly in the secondary schools. The number of children learning English dropped by nearly 30 per cent.

Sixteen new primary and eight new secondary schools were opened.

The schools maintained by local boards and native states were exempt from the general loss in the number of pupils.

The gross expenditure from all sources amounted to Rx. 737,293, or about 1 per cent. more than last year. The percentage of the total cost borne by the Government was 30·5; by local funds, 13·1; by municipal funds, 5·8; by fees, 21·7; by native states, 13·5; and from all other sources, 15·4. In the British districts of the Presidency, Government contributed 37·2 per cent. of the cost, and local funds, 16 per cent.

The increase in Government expenditure is mainly due to larger grants to secondary schools and increased activity in building.

Primary schools for boys increased in number by 27 to 8,828, but the attendance fell off by 9 per cent. to 518,082.

The number of schools and the aggregate of pupils increased in the native states. It may be said of all classes of schools that, considering the untoward conditions of the year, they made fair progress, calling for no special remark. In the cities of Bombay and Poona, however, education was completely disorganised. The decrease in the number of Muhammadan pupils is noticeable.

There was a large increase both in the numbers of candidates, and in the number of those successful in the university matriculation examinations; and the candidates holding school certificates continued to maintain a preponderance amongst the successes.

The Rajkumar College continued its high standard of efficiency, and there was a slight increase in the number of pupils.

The number of art students fell off, alike in the Sir Jamsetji Jijibhai School of Art and in the other schools. The general progress of the training schools was satisfactory.

On the whole, the general state of education in the Presidency, if allowance is made for the plague and famine spheres, must be pronounced to be gratifying.

In Coorg the total expenditure on education (Rx. 4,152) was slightly less than last year. It was contributed in the following proportions:—provincial funds, 61 per cent.; plough tax, 3 per cent.; municipal funds, 5·5 per cent.; fees, 22·5 per cent.; other sources, 8 per cent. COORG.

Although the number of public schools (79) was unchanged, the pupils (4,696) fell off 11 per cent. on account of the prevalence of fever. Ten new private schools were opened, bringing the number up to 41, but there was a decrease of 20 per cent. in the number of pupils (419).

The 4,314 boys at school represent 29·9 per cent. of boys of a school-going age, whereas the 801 girls are only 6·9 per cent.

The income from fees fell off, owing chiefly to the closing of St. Mark's School. The one high school at Mercara passed only three out of 15 candidates for matriculation.

LITERATURE AND THE PRESS.

LITERATURE.

The number of publications received in the Bengal Library was 2,346, showing a decrease of over 12·7 per cent. on 1895, which is ascribed partly to evasion of the registration law, and partly to delay in registration. The number of evasions is apparently on the increase, and there is no agency to detect omissions. BENGAL.

Of these 2,346 publications, 647 are periodicals, and 1,699 books, and of the latter 1,455 are original publications, the rest being reprints or translations.

LITERATURE.

Sixty-one English periodicals and 52 vernacular newspapers are registered. Six new vernacular papers were started, and 12 were discontinued.

The number of publications in the Bengali language was 752 (against 952 last year), of which 736 were original. Works on "language" (149) head the list, followed by "religion" (117), "poetry" (99), and "fiction" (83).

Two hundred and sixty-three English publications were received (against 345 last year), three Persian (against nine), 54 Sanscrit (against 64), amongst which two treaties on the Nyáya philosophy deserve mention; 106 Hindi publications (against 88), 13 Urdu (against 22), including a noticeable volume of "Essays on the reform of Muhammedan Society," by Mr. Delawur Hassan Ahmed, B.A., Inspector General of Registration.

Thirty "Musulmani-Bengali" publications, designed for the edification of the lowest classes, were received.

One hundred and fifty-six Uriya books (against 110) were registered. Most of these were translations from Bengali, the manufacture of verse acrostics being at present the only form of original intellectual effort in the Uriya language which calls for notice.

As regards Bi-lingual publications, 270 (against 285) were this year received, being written in any two of the following languages, viz., English, Latin, Sanskrit, Pali, Arabic, Persian, Bengali, Urdu, Hindi, Musulmani-Bengali, Uriya, Manipuri, and Malay. The most important of these are treatises in Sanskrit and Bengali on such subjects as law, religion, and philosophy.

A number of important works issued from the Bengal Secretarial Press.

Of the 100 distinct issues represented by the 647 periodicals, 34 were in English and 53 in Bengali. "Pessimism and conservatism," according to the Bengal Librarian, "seem to be the characteristic traits of native Bengali journalism."

No returns of the circulation of newspapers are given. One Bengali periodical (the "Bhárati"), dealing with general topics, is edited by two Hindu ladies.

North-Western Provinces and Oudh.

There were 1,233 publications in the North Western Provinces during the year as against 1,354 in 1895. These were in the following languages:—English, 105; Urdu, 514 (against 560); Hindi, 230 (against 354); Sanskrit, 43; Arabic, 22; Persian, 71; polyglot and bilingual, 240 (against 200).

As regards the subjects, religion is pre-eminent. Works on astrology and spiritualism are reviving, under the influence of the Theosophical Society. A large mass of Urdu erotic poetry, and of vernacular translations of inferior English fiction, may be noticed. The Vedanta philosophy continues to attract attention.

Six new periodicals are reported.

The number of vernacular newspapers is 123 (an increase of two), including 27 new ventures. Events in Turkey and Egypt received much attention from Muhammadan papers.

Punjab.

The number of publications in the Punjab has fallen from 1,304 in 1895 to 971, the decrease being attributed to the general distress. Of these, 411 are in Urdu, 208 in Punjabi, 80 in English, 71 in Hindi, and 88 bi-lingual or polyglot. As regards the subject-matter, poetry claims 255, religion 194, language 107.

The "Paisa Akhbár," of Lahore, has the largest circulation (11,000) of the vernacular newspapers in this Province.

Assam.

Fifteen works were registered in Assam during the year, against 18 in the previous year. Eight of these were educational. One English weekly paper, and three vernacular papers continued to be published.

Central Provinces.

Thirty-four publications were registered in the Central Provinces (against 25), of which 17 were in the Hindi language, English, Marathi, Urdu, and Sanskrit supplying the rest. There were 13 English and vernacular newspapers, and two periodicals.

Berar.

In Berar thirteen books (against 17) were registered, of which 11 were issues of the Berar School Paper (in Marathi), one a Marathi magazine, and the remaining one an Urdu religious poem. There are 11 printing presses.

Mysore.

Five works (two in English) were registered at the civil and military station of Bungalore.

In the Mysore State 135 publications (against 148) were registered, of which 94 were books and 41 periodicals. Of the total number, 61 were educational. A novel of some merit in the Kanarese language is reported. LITERATURE.

In Bombay the total number of works registered during the year was 1,384 (884 books and 500 periodicals), against 1,421 in the previous year. Of these, 624 were original. Bombay.

Of the 56 English works 27 were educational. In the Gujarati language 241 works were published, including an important "History of the Kings of Persia," by Palanji Banjorji Desai, and a poem entitled "Kunja Vihára," by the late H. H. Dhruva, B.A., who claimed that his "poetry was pervaded by a new feeling of love like that of the English lake poets."

The Marathi works number 223, including a text-book on the "Elements of Politics," based on Professor Henry Sidgwick's work on the subject, and an adaptation of Mr. Herbert Spencer's "First Principles." An essay by Mr. M. S. Gole, M.A. (Principal of the Fergusson College), on "The Brahmans and their Education," provoked much criticism in the vernacular press. A number of Marathi poems deal with the career of Shiváji.

Ten Arabic, 12 Persian, and 55 Sanskrit books are reported.

As regards the less general vernaculars, the register includes 60 Hindi works, 34 Urdu, 30 Sindi, 14 Kanarese, 2 Punjábi, 2 Márvádi, and 1 Konkani.

The number of bi-lingual works was 137 (the most important being in Sanskrit and Hindi), and of tri-lingual works 7, the latter class including a grammar and vocabulary of the language of the Bhils.

The number of newspapers was 181, and of periodicals dealing with current events 19 (against 181 and 23 respectively in the previous year).

Of the English newspapers, the *Indian Spectator* has the largest circulation, whilst amongst Marathi and Anglo-Marathi papers the *Kesari*, with 6,900 subscribers, heads the list.

The vernacular press was very busy with criticisms of the Government, especially in the matter of plague and famine.

A steady, though slow, improvement in the literary activity of the Madras Presidency is reported. The total number of publications registered is 969 (against 925). Of these, 216 were periodicals and 753 books or pamphlets. As regards their matter, 271 works are devoted to religion. Amongst the miscellaneous branches of literature may be noted a Roman Catholic drama in Tamil, a Tamil novel ("Kamala") by a native lady-novelist, and several works on the Vedantic philosophy. Madras.

The number of publications in different languages is as follows:—English, 221; Telugu, 266; Tamil, 198; Kanarese, 55; Malayalam, 44; Urdu, 95; minor vernaculars, 5; Sanskrit, 47; bi-lingual, tri-lingual, and polyglot, 138, consisting of works in two or more of the above languages, together with 1 English-Latin work on religion, and 1 Arabic-Malayalam biography.

The number of newspapers in circulation (including the returns from the Native States of Travancore and Cochin) was 111, of which 30 were in Tamil, 30 in Telugu, and 20 in Malayalam. The two papers with largest circulation were the "Messenger of Truth" (English-Telugu), and the "Satyadutan" (English-Tamil), each being a religious monthly with a circulation of 4,000.

The number of books registered in Burma was 73 (against 68), of which 29 were religious and 18 educational. A translation of the "Arabian Nights" into Burmese may be noted. Burma.

CHAPTER XIII.

EMIGRATION AND MIGRATION.*

EMIGRATION.

I. EMIGRATION.

Calcutta.

THE port of Calcutta was indented on for labourers in 1896 by five British Colonies (Trinidad, Demerara, Mauritius, Natal and Fiji), and by the Dutch Colony of Surinam, Jamaica taking no coolies this year. The number requisitioned (8,776) was 711 less than the number in the previous year, but the supply exceeded the demand by 835.

Natal requisitioned only 815 coolies (as against 1,900 in 1895), and important alterations were made in the terms of engagement. Free passages will henceforth be given after five years' residence in the Colony instead of after 10 years as formerly, and, further, all emigrants have to bind themselves to return to India on the termination of their indenture or re-indenture. Those who decide to remain in Natal without re-engaging themselves must take out yearly licenses at an annual fee of 3*l.* sterling.

For Demerara, Trinidad, and Fiji, the supply of coolies fell short of the demand.

As regards recruiting operations, 755 licenses (83 less than in 1895) were granted, 12 of them being subsequently cancelled for misconduct.

The number of emigrants registered was 16,439 (as against 17,315 in 1895), the average being 21 for each recruiter. Of these emigrants 6·21 per cent. were recruited in Bengal; 12·4 per cent. in Bihar; 58·25 per cent. in the North-West Provinces, and 23·38 per cent. in Oudh. It was found that 60 per cent. were natives of the North-West Provinces, 31 per cent. of Oudh; 7 per cent. of Bengal and Bihar; and the remaining 2 per cent. of other Provinces, Native States, and foreign countries.

Besides the 16,439 emigrants registered this year, 118 remained over in the depôts from 1895, and one child was born. Of the total of 16,558, 15·76 per cent. were rejected as unfit before despatch to Calcutta, desertions, casualties, and the retention of 176 in sub-depôts brought down the number to 11,884 or (71·77 per cent. of the number registered. This number, however, rose to a total of 12,796 in the depôts in Calcutta, on account of coolies remaining from 1895, re-admissions from hospitals and births. But a medical rejection of 8·94 per cent., a few deaths and desertions, and the discharge for various reasons of 1,033, brought the number of emigrants finally despatched to the colonies to 10,176 (as against 10,688 in 1895), leaving a reserve of 276 at the end of the year in the Natal depôt.

The average mortality on the voyages was 1·09 per cent. (against 1·11 in 1895), largely due to an epidemic of measles on four emigrant ships.

The number of previous emigrants returning in 1896 came to 3,297 (against 6,514 in 1895), 75 persons having died on the homeward voyage; 19 of the returned emigrants were lepers. It is impossible to ascertain where they had contracted the disease, but no person affected by leprosy in a recognisable stage is now allowed to leave India for the Colonies. The returned emigrants came from six Colonies, and the average ascertained savings (varying from Rs. 224 per head in the case of Trinidad to Rs. 33 per head from the French Colonies) came to Rs. 175 per head, as against Rs. 205 in 1895.

Madras.

Agencies were maintained at the port of Madras by the Mauritius and Natal Governments. The Mauritius depôt received 378 coolies (instead of 1,102 in 1895, the decrease being ascribed to the small demand for labour in that colony), of whom 242 were actually despatched. The Natal depôt contained during the year 3,596 persons, of whom 1,972 were despatched (281 more than last year.)

From Negapatam in the Madras Presidency 2,861 (instead of 1,617) indentured emigrants went to the Straits Settlements.

From Mauritius 496 emigrants returned, with savings averaging Rs. 11–11 per head, and from Natal, 123 with average savings of Rs. 112–12.

Emigration is not allowed to French Colonies, but Réunion repatriated 87 emigrants, with average savings of Rs. 23 per head. EMIGRATION.

During the year 203,260 British subjects (including free emigrants) left the Madras Presidency for countries outside British India (against 181,530 in 1895). Ceylon returned 121,193 emigrants (against 101,156); and 119,912 coolies (a decrease of 4,063) left Madras for Ceylon.

The Uganda and East Africa Protectorate has now established an agency at Karachi, to meet the considerable demand for labour created by the construction of the Uganda Railway. Bombay.

By means of the agency 3,990 coolies (chiefly from the Punjab) left Bombay for Uganda in 1896-97. The large flow of free emigrants to South East Africa continued, consisting chiefly of artisans, cultivators, petty tradesmen, and servants.

II. MIGRATION.

MIGRATION.

The large number of 81,115 immigrants (8,728, or 11·3 per cent. more than thnn in 1895-96) entered Assam in 1896-97. These figures represent the labourers who entered the province to work on tea-gardens and coal-mines, and do not include several thousand coolies who came as "free labourers" to the Assam-Burma Railway line. Assam.

The increase took place almost entirely in the Assam Valley. It is due to the famine and scarcity in India, as is evident from the much increased migration of entire families, the number of women and children who entered the province being greatly in excess of last year's returns.

Of these immigrants, 61,301 were adults, and 19,814 children.

The number of free labourers not under contract (the term includes all coolies not enlisted under the Emigration Act) was 44,708, more than half of whom went to the Surma Valley; 12,979 coolies contracted at Dhubri, after entering the Assam Valley; 7,097 subsequently contracted in the various labour-districts higher up the valley.

A great increase took place in the number of coolies coming from the Central Provinces. The Act was extended to these provinces in 1893, in which year only 876 coolies were there engaged. But it seems that emigration has since been made popular by reports of coolies who have returned from Assam, for, in the year under review, 17,285 were engaged in the Central Provinces.

The number of immigrants from Bengal fell to 24,224 (a decrease of 14 per cent.). It appears that the recruiting grounds of Behar and Chota Nagpore are practically exhausted. A slight increase took place in the number enlisted from the North-West Provinces, but it is found that these coolies suffer from the climate of Assam to some extent. A few of the Assam immigrants come from such distant parts of India as Madras and Bombay.

It is noticed that the "Contractors' recruits" are falling off in number, whereas those enlisted by "Garden sardars" are becoming more numerous. These sardars secure the best class of labourers, but, at present, this system of recruitment is disproportionately expensive, as each sardar, on an average, enlists only two coolies. It appears that only 16,351 of the Assam immigrants enlisted under the Emigration Act.

As regards the medical statistics, the percentage of coolies rejected on physical grounds at Dhubri fell from 8·6 in 1895-96 to 3·2 in 1896-97. Unfortunately these figures represent a change in the system rather than an improvement in physique, for regard is now paid to the coolie's fitness to travel to the labour-districts, not, as before, to his capacity for work. The consequence is that many sickly persons are allowed to enter Assam.

An outbreak of cholera amongst the immigrants was happily suppressed without great loss. Inoculation against cholera is practised, but the Government of Assam is careful to maintain inoculation as an optional process.

The complaints of fraudulent enlistment are less numerous. Only 56 contracts were cancelled for this cause, most of which had been made by contractors. But 1,159 contracts were annulled on the ground of permanent incapacity to labour, and 1,015 of these unfit persons had been obtained through contractors.

MIGRATION.

28,915 labour contracts were made within Assam (not counting hose, formed at Dhubri, which are invariably with newly-arrived immigrants), and about one-half of these were for one year only. Almost all these "local contracts" are entered into by time-expired coolies who re-enlist.

The condition of wages is not satisfactory; they stand at the level of 40 years ago, whereas prices have risen. The subject is under consideration, but there are great difficulties in the way of fixing a legal minimum wage.

243 coolies (instead of 86, as in the preceding year) were convicted of rioting, but only 129 (as against 148) for breaches of the Labour Law (Act I of 1882). But under Act XIII of 1859 (Fraudulent Breach of Contract by Labourers) there were 199 convictions. Some of the accused were not arrested until their return from Assam, but steps will in future be taken to prevent this course, which entails unnecessary hardship.

There was no increase in the number of desertions, but these stand at the large figure of 17,595, representing 3·58 per cent. in healthy gardens, and 6·22 per cent. in those classed as "unhealthy." Only 46 gardens were thus classed this year as compared with 73 in 1895. Occasional epidemics of course occur in normally healthy gardens, but the whole subject has received careful attention from the Chief Commissioner who, where necessary, has taken decided action. The death-rate is 32 per thousand (the lowest return extant, except those of 1881 and 1894), affecting chiefly labourers from the North-West and Central Provinces. The registration of births is still defective.

A number of destitute coolies are reported as emigrating from Assam. These unfortunate people were, in most cases, free labourers from the railway. Steps have, however, been taken to bring home to employers their responsibility for the repatriation of the coolies.

Burma.

The returns from Burma are meagre, but the following statistics of coolies who passed through the principal ports are available :—

Immigrants passing through Akyab, 16,527; through Rangoon, 114,625; through Moulmein, 733; through Kyaukpyu, 2,732. Emigrants returning from Akyab, 17,894; from Rangoon, 66,469; from Moulmein, 1,256; from Kyaukpyu, 1,309. The immigrants therefore exceeded the number who left the country by 47,689, or nearly 55 per cent. The report from Rangoon shows an increase of 37,444 immigrants (nearly 50 per cent.) over last year's returns. This increase was due mainly to scarcity in India. The increased numbers were easily absorbed in the deltaic districts of Lower Burma.

Madras.

From the Madras Presidency 61,020 British subjects embarked for Burma (an increase of nearly 60 per cent.), and 61,136 left for other parts of British India. 35,517 came back from Burma, and 65,297 from other parts of British India.

XIV.

TRADE AND MANUFACTURES.

(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)

TRADE.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1897, was valued as follows:— TRADE.

	Tens of Rupees.				
BY SEA.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.
	Rx.	Rx.	Rx.	Rx.	Rx.
Private Imports:					
Merchandise	62,605,030	73,956,957	70,167,438	69,316,395	71,914,697
Treasure	17,009,810	18,425,256	9,559,007	13,358,986	13,075,353
	79,614,840	92,382,213	79,726,445	82,675,381	84,990,050
Private Exports:					
Foreign Merchandise re-exported	4,590,290	4,431,975	5,057,414	4,717,516	4,033,637
Indian Merchandise	101,945,707	102,015,615	103,757,585	109,545,624	99,880,660
Treasure	6,928,994	4,024,737	8,158,017	4,232,301	4,925,891
	113,464,991	110,472,327	116,973,016	118,495,441	108,840,188
Government Transactions:					
Imports Stores	3,660,247	3,064,475	3,361,555	3,620,358	4,189,251
Imports Treasure	0	36,000	22,200	9,000	9,210
Exports Stores	59,479	55,779	98,779	71,598	69,799
Exports Treasure	29,929	75,455	68,055	27,510	11,605
	3,749,655	3,231,709	3,550,589	3,728,466	4,279,865
TOTAL Trade by Sea	196,829,486	206,086,249	200,250,050	204,899,288	198,110,103
BY LAND.					
Imports	3,895,389	4,351,251	4,926,735	4,959,428	5,637,113
Exports	3,594,690	3,698,321	4,249,727	4,220,460	4,934,852
GRAND TOTAL of Trade by Land and Sea	204,319,566	214,135,821	209,426,512	214,079,176	208,682,068
Excess imports of treasure	10,050,187	14,361,064	1,355,135	9,108,175	8,146,877
Net excess of exports over imports of merchandise, Government transactions, and treasure	29,978,613	14,467,943	33,352,642	31,550,842	19,030,820
India Council Bills paid in India	26,977,500	16,422,700*	28,884,100†	33,080,900	25,227,900

India's trade for 1896-97 was adversely affected by the drought of 1896, which caused failure of harvests and famine over a large part of India, and by the plague which arrested trade and business of all kinds in Bombay and Karachi during the seven months ending with May 1897. During the first half of the year the foreign trade was nearly up to the level of the preceding

* During 15 weeks of the year 1893-94 no Council Bills were sold.

† As in previous years, the Council Bills and Telegraphic Transfers actually paid during the year in India are given; the Bills actually drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1896-97 amounted to Rx. 25,940,900, yielding 15,622,915*l.*, at an average rate of 14·454 pence per rupee.

TRADE.

season; but from October 1896, when the failure of crops became known and plague appeared, there was reduction in the imports and a serious shrinkage in exports. The fall in the value of exported merchandise was 10 millions of Rx., or about 9 per cent. There was an increase of 2½ millions, or 3·8 per cent. in the value of imports. The value of imported piece goods, petroleum, cotton yarns, and railway material, was higher than in the previous year; the largest increase was nearly four millions Rx., or 17½ per cent., in piece goods, but the total is more than two millions below the average of the total piece goods imported in the two years 1893–95. The largest decrease of imports was 1⅙ millions, or 14 per cent., under the head of "Metals and Hardware." The only increases of exports, as compared with the previous year, were under the heads of "Jute and Jute Goods," one million Rx., or 7 per cent.; of tea half a million Rx., or 6 per cent., and of cotton yarn, half a million, or 7 per cent. The decreases were all due to the failure of the crops, save in the case of opium, where the decrease was partly due to a fall in the price of opium. The chief decreases were under the heads of:—

Wheat	- decrease of	3	million Rx., or	79	per cent.
Raw cotton	„	1	„ „	7	„
Rice	„	1½	„ „	11	„
Oil seeds	„	1¾	„ „	18	„
Indigo	„	1	„ „	23	„

Lower Burma, the chief rice-exporting province of India, had a good rice harvest and a full exportable surplus; but out of that surplus Burma sent, during 1896–97, as much as 291,000 tons of rice to India and Upper Burma, where there was a dearth of food, as compared with 54,000 tons supplied to those markets in the preceding year; the exports of Burma rice to foreign countries were proportionately reduced.

The trade across the land frontier of India was valued at Rx. 10,572,000, or 15 per cent. above the preceding year, which had shown the largest trade till then recorded. Trade by land to and through Afghanistan and Nepal showed a decrease. Trade with Kashmir, Nepal, and Siam, increased; but the largest increase was in the trade with Western China, and the Shan States.

The coasting trade between Indian ports, for the first time for several years, showed a decrease; it was valued at Rx. 68,201,000 in 1896–97, as compared with Rx. 74,605,000 in the previous year. More than three-fourths of the coasting trade of India is now carried by steamers.

The value of the chief articles imported to, and exported from, India in the past four years, exclusive of re-exports, is as follows:—

VALUE OF CHIEF ARTICLES OF IMPORT BY SEA (exclusive of Treasure).

	Tens of Rupees.			
	1893–94.	1894–95.	1895–96.	1896–97.
Cotton woven goods - - -	29,269,000	29,822,000	22,784,000	26,424,000
Metals and hardware - - -	7,580,000	6,346,000	8,196,000	7,021,000
Oils, chiefly petroleum - - -	3,570,000	2,221,000	3,137,000	3,439,000
Silk, raw and manufactured - -	3,188,000	2,314,000	2,937,000	2,242,000
Cotton yarns - - - - -	3,109,000	2,851,000	2,971,000	3,326,000
Sugar - - - - - -	2,824,000	2,875,000	3,107,000	3,152,000
Machinery and mill work - -	2,518,000	2,442,000	3,237,000	3,510,000
Provisions - - - - -	1,783,000	1,576,000	1,797,000	1,550,000
Chemicals, medicines, dyes - -	1,837,000	1,866,000	2,161,000	1,890,000
Woollen goods - - - -	1,892,000	1,542,000	1,446,000	1,693,000
Liquors (alcoholic, including beer) -	1,458,000	1,458,000	1,696,000	1,645,000
Apparel - - - - -	1,578,000	1,435,000	1,594,000	1,516,000
Railway material - - - -	1,243,000	1,557,000	1,521,000	2,662,000

VALUE OF EXPORTS BY SEA (exclusive of Re-exports of Imported Goods). TRADE.

	Tens of Rupees.			
	1893-94.	1894-95.	1895-96.	1896-97.
Raw cotton	13,297,000	8,703,000	14,090,000	12,970,000
Rice	10,247,000	13,692,000	13,431,000	11,850,000
Oilseeds	16,753,000	14,202,000	9,717,000	8,012,000
Jute, raw and woven	11,966,000	14,788,000	14,740,000	15,765,000
Opium	8,019,000	9,065,000	8,459,000	8,021,000
Wheat	5,194,000	2,565,000	3,914,000	836,000
Cotton yarns	4,974,000	5,672,000	6,731,000	7,173,000
Tea	6,585,000	7,556,000	7,665,000	8,125,000
Hides and skins	5,801,000	6,560,000	7,639,000	7,001,000
Indigo	4,182,000	4,746,000	5,355,000	4,371,000
Coffee	2,002,000	2,122,000	2,198,000	1,585,000
Cotton woven goods	1,268,000	1,360,000	1,463,000	1,204,000
Wool, raw	1,080,000	1,377,000	1,353,000	1,241,000

Since the closing of the Indian Mints, India's trade in merchandise with gold-using countries has fallen from 77 to 74 per cent. of the total trade, while her trade with silver-using countries has risen from 23 to 26 per cent. Of India's whole trade 65 per cent. was with Europe, 47·2 per cent. being with the United Kingdom. The values of India's trade with some of the chief countries has advanced or decreased thus:—

	Total Value.		
	1891-92.	1895-96.	1896-97.
	Rx.	Rx.	Rx.
With the United Kingdom	82,812,000	83,304,000	83,034,000
France	12,009,000	9,657,000	7,288,000
China	16,701,000	15,755,000	15,968,000
Germany	5,254,000	10,413,000	9,555,000
Straits Settlements	7,603,000	8,285,000	7,172,000
Belgium	6,790,000	6,682,000	5,463,000
Italy	3,540,000	3,561,000	3,535,000
Ceylon	3,396,000	4,214,000	3,927,000
Japan	1,361,000	3,237,000	4,642,000
United States, America	5,079,000	7,053,000	6,285,000
Russia	1,370,000	2,269,000	2,446,000

The largest comparative advance has been in the trade with Japan, Russia, and Germany; the largest decrease has been in the trade with France. As compared with the previous year, the United Kingdom, China, Japan, Italy, and Russia, were the only countries that did not experience a large shrinkage in their trade with India.

Among the maritime provinces of India the Bombay Presidency had 34·15 per cent. of the foreign trade in merchandise, Bengal had 43·13 per cent., Madras had 10·04 per cent., Burma had 7·92 per cent., and Sindh had 4·76 per cent. Among the chief seaports Bombay had 38·66 per cent., Calcutta 39·56 per cent., Rangoon 5·88 per cent., Madras 5·4 per cent., and Karachi 4·52 per cent., of India's total foreign trade in merchandise and treasure. The greater part of the trade in treasure belongs to Bombay; in merchandise Calcutta was considerably ahead of Bombay, the former showing 74¾ millions and the latter 60 millions as the total value of their export and import trade.

The net imports of treasure were below those of the previous year. The statistics for 1896–97 show a net importation of Rx. 8,138,000 of treasure into India, as compared with a net import of Rx. 9,108,000 in 1895–96, Rx. 1,355,000 during 1894–95, and of Rx. 14,361,000 during 1893–94. The 5 per cent. duty on silver imports yielded Rx. 326,000 of customs revenue, as compared with Rx. 356,000 in the previous year. The net gold importations were valued at Rx. 2,292,000, as compared with net gold imports of Rx. 2,526,000 in 1895–96, and with net gold exports valued at Rx. 4,974,000 in the year 1894–95.

MANUFACTURES.

MANUFACTURES. General.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products of British factories. Meanwhile, without any protection, favour, or advantage other than is afforded by cheap Indian labour and by the production of raw materials in India, an important manufacturing industry has been growing up, and steam power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. Steam power is also largely employed in factories on tea gardens and indigo estates.

At the end of the year 1896–97 there were 154 cotton mills worked by steam, of which seven were opened during the year; 105 of the mills were in the Bombay Presidency; and the whole represented a nominal capital of about Rx. 13,866,000. Eleven of the mills are situate in Feudatory States or in French territory. The cotton mills employed a daily average of over 149,000 hands. They contained 37,303 looms and 3,975,719 spindles. The cotton mills of India are said to have used during the year 5,032,000 cwts. of cotton. This industry dates from 1851, when the first mill was started. Eighteen years ago there were in India 58 cotton mills, employing 39,000 hands, working 13,000 looms, and 1,437,000 spindles, and representing a capital of Rx. 5,300,000. The industry has thus increased nearly threefold since the year 1879.

Information regarding the working of these mills is available only for the factories in British territory. The out-put of yarn during the last two years was:—

	Counts above 20s.	Lower counts.	Total.
1895–96 -	44,625,000 lbs.	390,499,000 lbs.	435,124,000 lbs.
1896–97 -	55,096,000 „	366,444,000 „	421,540,000 „

The decrease in the total was due to the plague in Bombay, which presidency produced 72 per cent. of all the yarn; Bengal, 10 per cent.; Madras, 7 per cent.; the North-West Provinces, 5 per cent.; and the Central Provinces, 4 per cent. The proportion of higher-count yarns, 13 per cent. of the whole, was much larger than in the previous year. The production of woven goods by mills in British India was 82¼ million lbs., of which 67 million lbs. were from the Bombay Presidency. There is hardly any weaving done in Bengal; Madras and the Central Provinces each contribute 6 per cent. of the woven goods. These goods are mainly unbleached grey fabrics; only in the Central Provinces does any material portion of the weaving consist of finer goods, and there these fabrics are 21 per cent. of the whole production.

The number of jute and hemp mills was 32, as compared with 29 in the previous year; all but two (including one in the French settlement of Chandernagore) are in Bengal; of these two, one is at Cawnpore, and the other—the only hemp mill—is in Vizagapatam. The capital employed by these mills is about Rx. 4,400,000. They employed 92,000 hands, on 12,784 looms and 258,154 spindles. In 1879–80 the corresponding figures were 21 mills, 27,000 hands, 4,645 looms, and 70,840 spindles. There were six woollen mills at work at the end of 1896, containing 18,658 spindles, and 530 looms, and producing goods valued at Rx. 250,000 a year. The fabrics consist chiefly of blankets, serges, and cloths worn by the Army and the police.

Seventy-four rice mills for husking and cleaning rice, and 72 saw mills, most of which were in Burma, employed about 45,000 hands; the amount of white or fully-cleaned rice produced by the rice mills continues to increase, while the proportion of cargo or half-cleaned rice exported decreases. Of the ten paper mills in India, one at Gwalior and another at Bombay were not worked during the year. For seven out of the ten factories the nominal capital was Rx. 627,000. Most of the paper used in Government offices is now obtained

from Indian mills; and the value of papers imported into India in 1896–97 was Rx. 378,000 as compared with Rx. 402,000 in 1895–96. The produce of the ten paper mills had increased to 41 million lbs. in weight, against 34½ million lbs. in 1894, and 40 million lbs. in 1895, and was valued at Rx. 587,000. The paper factories employed 3,613 hands, and the materials they used were chiefly moonj grass, jute and hemp cuttings, straw and rags of different kinds. Small paper works, making common paper without machinery, exist in several provinces, but for these petty industries no statistics are available. In 1896 there were 24 breweries at work, which produced during the year 6,314,000 gallons of beer and porter, or 75,000 gallons more than they yielded in the previous year. The Commissariat Department bought 3,385,000 gallons of this malt liquor, as compared with 3,146,000 gallons purchased in 1895, for the use of European soldiers. The largest brewery was at Murree in the Panjab Himalayas, and the output of that concern was 816,000 gallons in 1896. The quantity of beer imported into India averaged 3,030,000 gallons a year from 1895 to 1897, or about one-half the quantity produced in the country. MANUFACTURES.

Among other "large industries," which are shown in the Indian Returns for 1895, may be mentioned:—

Silk mills	7	Oil mills and factories	64
Soap factories	8	Flour mills	67
Tanneries	59	Ice factories	39
Iron and brass foundries	54	Pottery and tile factories	86
Sugar factories (large)	13	Bone-crushing factories	15
Coffee works	23	Tobacco and cigar factories	41
Cotton ginning factories, cotton presses, and jute presses	530	Silk filatures	89
		Glass factories	2
Cotton and woollen spinning and weaving establishments, not classed as mills	21	Saltpetre refineries	1,704
		Dye works	11
Rope factories	11	Indigo factories, large and small	7,951
Cutch and lac factories, large and small	139		

Bengal contains jute mills, cotton mills, paper mills, collieries, the only large ironworks in India, and the largest pottery factory in India, besides factories for lac, sugar, rope, indigo, and saltpetre, tanneries and foundries. The coal output was larger than ever; but the saltpetre, silk, jute, lac, and paper industries all either fell short of, or barely reached the level of the preceding year. The mica industry and the large pottery works at Raniganj did well during the year, and the Barrakur iron works made an important forward movement. Bengal.

Among native industries in the North-West Provinces, brass-work, stone-quarrying and stone-carving, and weaving, are the most important; but these Provinces, which contain more large cities than any part of India, possess a great number of flourishing arts and crafts. In consequence of the famine, none of the ordinary industries, which supply for the most part only local needs, did well during the year. North-West Provinces.

In the Punjab there are few large industries apart from agriculture. As has been mentioned in previous Statements, the Punjab Government published during the four years 1889–92 monographs on some one of the principal indigenous industries of the Province, namely, upon the brass and copper industries, upon work in gold and silver, upon the fibrous plants of the Punjab other than cotton, and upon the leather industry. The large industries of the Punjab are, one woollen mill, nine breweries, 29 cotton pressing and ginning factories, six flour mills, one large sugar concern, and four iron foundries. Punjab.

The large industries of Burma are 66 rice mills, 56 saw mills, one petroleum refinery, and seven ironworks for working imported iron and steel, not for smelting iron ore, one cotton press, and one oil press. All these are worked by steam. There are also three shipbuilding yards and six cutch factories. Among the more important local and indigenous industries are boat-building, weaving, gold and silver work, wood-carving, cigar-making, *ngapi* or fish-curing, pottery, lacquer-work, brass-work, and marble-work. Burma.

MANUFACTURES. Central Provinces.

The large industries of the Central Provinces are six cotton mills, of which one is situate in the chiefship of Nandgaon, and another—the Empress of India Mill at Nagpore—is the most successful concern of its kind in India. They contain 1,700 looms, and 108,389 spindles, and employ 6,375 persons, of whom 4,637 are adult males; the amount of cotton consumed in these mills during the year 1895-96 was 182,000 cwts.; the contraction of the output, as compared with the previous year, was due to the unfavourable season. Besides the cotton mills, 20 other steam factories, including two collieries, were at work during the year. The usual domestic industries are practised in the Central Provinces; but there has been no revival of the cottage industry in embroidered or fine cloths for which the Nagpur country used to be celebrated. The severe famine interfered much with the local demand for local manufactures during 1896-97.

Assam.

The production of tea continues to be the first industry of Assam; the area under tea plants increased to 282,000 acres, or 6,000 more than in the preceding year; the average out-turn of the year rose from 419 to 437 lbs. per acre over the whole tea-producing area; but prices of Assam tea in the Calcutta market ruled about 6 per cent. lower during 1896 than in the previous year; this was the second consecutive year in which prices fell. The number of persons, inclusive of children, working on tea-gardens in Assam is returned at 589,000 against 537,000 in the preceding year; the number of labourers who immigrated into Assam during the year 1896 was 81,000 as compared with 73,000 in 1895; the death-rate among all classes of labourers and their families fell from 33·6 per thousand in the previous year to 32·0 in 1896; and the proportion of unhealthy gardens has fallen from 8·7 to 5·7 per cent. The relations between employers and labourers are said to have been generally satisfactory. The land held direct from the State by time-expired immigrant labourers rose from 53,618 to 58,167 acres; the coolies also cultivate considerable areas with rice and vegetables within the limits of nearly all tea gardens. The output of Assam collieries increased 3 per cent. to 176,000 tons, and the output of the Sylhet lime quarries increased 20 per cent., and reached 1,631,000 maunds in 1896-97.

Madras.

Weaving continues to be the most important domestic industry in Madras, though it has greatly declined under the competition of machine-made goods. Eleven cotton mills in the Presidency employed 11,000 hands, who worked 1,638 looms and 254,536 spindles. One mill for weaving hempen bags ran 98 looms and 2,084 spindles. The number of cotton presses in the Presidency was 48. Twenty-three coffee-curing works turned out 28,700,000 lbs. of cleaned coffee. The tanneries of Madras, Madura, Bellary, and Vizagapatam produced large quantities of good leather. Twenty-one factories in South Canara, Tinnevelly, and Malabar made large quantities of tiles and cement, and employed over 3,700 hands. Forty-one cigar factories were at work in the Godavari and the southern districts, and turned out Rx. 72,000 worth of cigars. Indigo is made on a small scale and of inferior quality at some hundreds of vats, and was exported to the value of Rx. 994,000 against Rx. 1,402,000 in the previous year; the decrease was due partly to the unfavourable season, and partly to low prices. Sugar was made on a large scale at four factories near the north coast, at some of which considerable quantities of rum were distilled.

Bombay.

In the Bombay Presidency there were 318 steam factories at work at the end of 1896, of which 128 belonged to the city of Bombay; at these factories 144,000 hands were employed. The spinning and weaving mills were 122 in number, besides 30 more that were projected. In addition to the workshops belonging to the railways and the great steamship companies, 14 factories in Bombay and Sind turn out ironwork of all kinds. Among other large factories using steam are dye-works; woollen-weaving mills and wool-cleaning mills; some hundreds of cotton ginning and cleaning mills; saw mills; paper mills; bone-crushing mills; rice-cleaning mills; flour mills; and mills for pressing oil.

Of the domestic industries and manufactures conducted after native methods, the chief are hand-loom weaving and cotton-spinning, which supply the hand-woven goods still worn by the majority of the lower classes; calico dyeing and printing, gold and silver lacemaking, the making of silk, and of garment pieces

partly of silk for women's wear, the weaving of cotton and woollen carpets; brocade work, and embroidery of gold and silver, for which Guzerat, Nasik, and Sind workmen are specially renowned; the making of glass bangles or bracelets; wood-carving, the art speciality of Guzerat; and sculpture, which is practised in Cutch and Kathiawar; in these three provinces also silver work is done of a special kind and of much excellence. In many parts oil for domestic use, for soap-making, for lubricating machinery, and for lamps is expressed by labour of cattle and men from castor-beans, sesame, rape-seed, poppy-seed, mhaura or (mhowa) nuts, linseed, ground-nuts, and cocoa-nuts. Cotton-seed oil and cake are made on a small scale and to a limited extent; but as yet no large factory for utilising surplus cotton seed in this way has been started. MANUFACTURES.

The only large manufactory in Berar is the steam mill at Badnera, where yarn and cotton cloth are manufactured. It produced 1,546,000 lbs. of twist and yarn, and 936,000 lbs. of cloth, against 992,000 lbs., and 1,049,000 lbs. respectively in the preceding year. The number of persons employed in this factory was 1,212, as compared with 1,037 in the previous year. There are altogether 32 steam cotton presses and 76 cotton ginning factories in the province. The three oil presses at Amraoti and Shegaon produced 995 tons of oil, or 25 per cent. less than in 1895-96. The domestic industries of Berar are the weaving of silk, cotton pieces with embroidered borders, cotton carpets, coarse cotton cloth and garment pieces, turbans and blankets. Berar.

FACTORY ACT.

The present Indian Factory Act came into force on the 1st January 1892. The changes introduced into the previous law were, briefly,— FACTORY ACT.

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours;

The hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day;

Hours of rest during work were prescribed for all labourers, namely, half an hour in the middle of the day for all hands; and one hour interval for women workers.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections, to have been as follows:—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1896.

PROVINCE.	Number of Factories liable to be inspected.	Number of Inspections in the Year.	Average Number of Hands employed daily.				Number of Factories.				Number of Persons convicted of breach of Act.	Number of Accidents Reported.			
			Men.	Women.	Children.	Total.	With Sunday Holiday.	With other Weekly Holiday.	Exempted from Sunday Stoppage.	Worked otherwise.		Fatal.	Serious.	Minor.	Total.
Bengal - - -	165	1,029	116,867	19,081	12,666	148,551	117	3	34	13	3	19	225	249	493
North-West Provinces and Oudh.	57	233	21,700	814	1,174	23,768	41	9	5	2	–	3	29	74	107
Punjab - - -	89	381	5,964	1,065	231	5,265	70	11	5	3	–	9	9	39	57
Burma - - -	128	586	17,722	382	44	18,148	114	4	2	8	3	3	35	20	58
Central Provinces -	31	161	7,554	1,832	617	11,003	16	11	–	4	1	–	6	18	24
Madras - - -	70	310	24,696	2,844	1,845	29,384	62	6	1	–	–	6	21	179	206
Bombay - - -	318	1,381	107,440	29,703	6,741	143,884	232	70	2	–	3	10	95	1,092	1,197
Assam - - -	10	19	1,201	290	73	1,564	10	–	–	–	–	1	2	2	5
Ajmere - - -	1	4	455	36	43	534	1	–	–	–	1	1	–	6	7
Berar - - -	76	458	4,168	2,614	143	6,925	34	40	–	–	1	3	5	3	11
TOTAL, 1896 - -	943	4,562	305,167	58,661	23,583	398,646	697	154	49	30	12	55	427	1,682	2,163
TOTAL, 1895 - -	876	4,513	293,836	54,530	22,735	371,091	660	139	60	3	2	51	438	1,612	2,101

FACTORY ACT. Bombay.

The largest number of factories is in the Bombay Presidency, and 128 are in Bombay city alone. In Bombay all factories, except seven, were inspected during the year, and more than half were inspected once a quarter. The sanitary condition of factories is said to be mostly fair or satisfactory, and in one district to be excellent; the supply of drinking water and the conservancy arrangements were sufficient; ventilation in some of the Bombay city mills requires improvement, and arrangements for removal of cotton dust in weaving and spinning rooms are inadequate. The general health of the work-people was disturbed by epidemics of plague, cholera, and small-pox; and the proportion of absentees on account of illness was large; a considerable number of the hands are usually away on their holiday, or at their villages. The wages earned are said to average 4 annas for a man per diem, 3 annas for a woman, and 2 annas for a child. One anna is equal to a penny. The wages are punctually paid. Factory labour is said to be attractive, and the condition of the hands is reported to be a little better than that of an ordinary cultivator. There was a large decrease in fatal accidents, which were fewer than in any previous year; the number of all accidents was somewhat larger: the fencing of machinery and other precautions against accidents are reported to be satisfactory.

From Bengal it is reported that, during the year 1896–97, all factories but five were inspected, and that 123 were inspected three or more times. The rules were found to be generally observed; water-supply, sanitary arrangements, ventilation, fencing of machinery, and employment of children were generally satisfactory. Suggestions made by inspecting officers received prompt attention. In several cases women and children were found to be employed after 8 p.m. contrary to law; that has been stopped. The housing of operatives and the sanitation of their quarters are being improved. Wages are regularly paid and average per diem, $2\frac{3}{4}$ annas for men, $1\frac{1}{4}$ annas for women, and 1 anna for children. The Sunday holiday is not yet given in jute factories. The Inspector considers that the installation of electric light in factories will not benefit either managers or operatives, as the long hours are found to cause bad work.

In Madras medical inspection and professional inspection of factories were satisfactorily performed; no factory was left uninspected. In almost all cases the sanitary arrangements, the condition of the factories, and the health of the operatives were found to be good. Machinery was generally fenced, and there was a small decrease in the number of accidents.

From the North-West Provinces it is reported that all factories except one were duly inspected, and that the sanitary condition of factories was found satisfactory; though ventilation required more attention. The health of operatives was good, and did not suffer from the prevailing scarcity and high prices. The law and rules for the prevention of abuses were observed.

From the Central Provinces it is reported that all factories were duly inspected; only seven factories employ children at all. The law about holidays and rest is observed. The health of the hands was good and sanitation received due attention. Factory hands are said to be better off than ordinary labourers.

In Burma the health of the operatives was good, and their condition was prosperous. Reasonable progress was made in improving the sanitary condition of factory premises. Inspections were regular, and the inspectors were generally satisfied with the condition of the factories. Of the accidents one only was fatal; and the majority occurred in saw-mills at Moulmein; as many as 11 serious accidents occurred at one saw-mill.

CHAPTER XV.

FRONTIERS, NATIVE STATES, AND TRANSMARINE INTERESTS.

FRONTIERS, Chitral.

THE Parliamentary Papers published early in 1898, relating to the military operations on the North-West Frontier (Volume II., pages 40 to 58), include reports showing that from the close of the Chitral Expedition in 1895 to the end of the year 1896-97 there was no disturbance along the line of communications between Peshawur and Chitral, that the relief of the garrison of Chitral by the route through Swat and Dir was successfully and peaceably carried out in 1896 and 1897, that trade on the border increased beyond expectation, and that large quantities of food supplies were obtained by the garrison from adjoining tracts. The condition of affairs thus appeared very satisfactory. But the Papers also show that agents had begun, before the end of the year under review, to stir up the fanaticism of the tribesmen. The consequent disturbances all along the border will be dealt with in next year's Statement.

Baluchistan.

The death of Major-General Sir James Browne, the Agent to the Governor-General, and Chief Commissioner in Baluchistan, on June 13th, 1896, was a cause of great sorrow throughout the province. During the year 1896-97 the work of demarcation of the Perso-Baluch and Baluch-Afghan frontiers was completed. A translation of the joint agreement relating to the latter frontier has been published in the Baluchistan Agency Report for the year. The relations between the commissioners engaged on the work were friendly throughout. Since the demarcation there has been some friction on the Zhob-Afghan border, owing to acts of aggression from the Afghan side. There has also been a considerable emigration from Pishin to Afghan territory, which was partly due to grievances which have since been redressed.

The financial administration of the agency was satisfactory. The allotment under the provincial contract was Rx. 86,600, which, with the Rx. 58,400 obtained from provincial revenues, gave an income of Rx. 145,000, against an expenditure of Rx. 141,600. The receipts exceeded the estimates owing chiefly to the rise in the price of grain, in which the revenue is in part assessed. Settlement operations are in progress; in the Quetta tahsil a 10 years' settlement on a cash basis was finally approved.

The year was a peaceful one, except for a fanatical attack by Marris on the Sumari Station of the Sind-Pishin Railway. Eleven men were killed, including an European. Of the six tribesmen implicated, five were convicted under the Murderous Outrages Act and were hung. The chief and *mukaddams* of the tribe were also condemned to pay a fine of Rs. 6,000.

The political affairs of Kalat were disturbed by the ambitious attempt of Mir Mehrulla Khan, uncle of the young Sarawan Sirdar, and the real head of the Raisanis, to reduce to complete subordination Sirdar Allaghar Khan, the chief of the Rustomzai section of the tribe. In consequence Sirdar Allaghar Khan withdrew for a time to Kabul. Efforts were made by the Political Agent to secure a permanent settlement of the feud, but its successful termination had not been obtained before the close of the year under review.

The composition of the military force of the Khan of Kalat was modified by the substitution of a camel corps for two companies of Brahui infantry. The British officer who is acting as military adviser to the Khan went on tour through Mekran, carrying out the relief of detachments of the Khan's troops at Panjkur and Nasirabad, and inquiring into and settling tribal disputes in Panjkur and Mand. One of the satisfactory results of this tour was that Mir Baluch Khan, who had frequently given trouble on the Persian frontier, was induced to come in and pay his respects to the Governor-General's Agent.

In May 1896, Mir Kamal Khan, the eldest son of the late Jam (chief), was installed as Jam of Las Bela, the administration of the state, being left for the time in the hands of Diwan Ganpat Rai, as Wazir. His management, particularly in regard to finance, was successful. The attitude of the Jam, however, who resented his exclusion from power, has not been satisfactory.

FRONTIERS, NATIVE STATES, AND TRANSMARINE INTERESTS.

One of the most important events of the year was the opening of the caravan route from Quetta through Nashki to Seistan, rendered possible by the settlement of the Afghan boundary. Arrangements were made for the control of the route and for its protection by local levies. The outbreak of plague in Western India rendered precautions necessary along this route and in the more settled portions of Baluchistan. Up to the end of 1896–97 only two cases (both imported) occurred, one in the Segregation Camp at Sibi and one at Shahrig.

Kashmir.

For several years the very large expenditure of the Kashmir State on its military forces, and on the construction and maintenance of the road to Gilgit, led to a series of alarming deficits. It is satisfactory that by the year 1896–97 a sound financial position had been re-established. Since 1892-93 the revenues have been improved by 10¼ lakhs, and the expenditure reduced by over 6 lakhs. The surplus of 1896–97, available for investment in Government securities, amounted to 6 lakhs, and the interest-bearing securities held by the state at the close of the year were valued at 37 lakhs; besides this there was a cash balance of 21½ lakhs and other valuable assets, principally jewels, to the amount of 43¼ lakhs. The famine extended into the Jammu province, and in some cases revenue had to be suspended; but the land revenue of the State was, on the whole, larger than previously. The administration of the other departments of the State is also believed to have been successful; but particulars have not been received, except in regard to the forests, the protection and exploitation of which appear to have been successfully managed. By a concentration of the regular military forces of the State and the substitution of local levies for small detachments of regulars for the garrisoning of outposts, greater military efficiency and economy have been secured, and a useful and popular employment offered to the local tribesmen.

Punjab.

Along the whole Punjab border the year 1896–97 was one of exceptional tranquillity. There was no serious raid, and petty cases were satisfactorily settled. A blockade was enforced against a section of the insignificant Chamkanni tribe on the Kurram border. In Tochi there were signs of unrest, particularly amongst the Maddakhel, but for the time the movement of troops to Datta Khel, at the request of the leading men of that section, seemed to still the agitation. In the Mohmand country a number of clans formally accepted allowances in recognition of British suzerainty, and peaceful arrangements were made at an important Durbar in November 1896, at which the leading men were received by the Lieutenant-Governor. The happy omens of 1896–97 were belied by the events of the succeeding year.

Nepal.

The danger of war with Tibet passed away, but friction with the Tibetans continued in the matter of customs arrangements. The relations of Nepal with the Government of India were as amicable as usual. In its internal administration the State shows little desire for change or progress, but its people appear to be happy and prosperous. The famine of 1896–97 did not touch them. The population is rapidly increasing, and no section of it lives in want. Justice is of a rough-and-ready character, and education is at a discount. On the whole, however, the people are firmly governed, and not vexed with a multiplicity of laws and regulations.

Tibet and Sikkim.

No further progress was made towards the final settlement of the Sikkim-Tibet frontier in connection with the Sikkim-Tibet Convention of 1890. The garrison of military police, at Gnatong, on the Tibetan frontier, was withdrawn in November 1896. The advance of the frontier trade with Tibet is shown from the following figures;—

———	1894–95. (For 11 Months.)	1895–96.	1896–97.
	Rs.	Rs.	Rs.
Imports into British territory - -	6,38,954	7,07,063	7,90,634
Exports from British territory - -	6,16,756	8,61,087	8,88,017

There was a large increase in the export of cotton, and of mixed cotton and woollen goods. A quarter of the exports consisted of silver coinage.

Sikkim was unaffected by the famine that prevailed in Bengal, and the condition of the people was prosperous. The following are the figures for receipts and expenditure for five years:— FRONTIERS, NATIVE STATES, AND TRANSMARINE INTERESTS.

	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.
	Rx.	Rx.	Rx.	Rx.	Rx.
Receipts - - - - -	5,702	7,885	7,434	9,075	10,981
Expenditure - - - -	5,749	6,026	7,089	11,288	11,839

A large portion of the expenditure has been devoted to the improvement of communications and for other public works.

The relations with Bhutan continued to be friendly, and were unaffected by any incidents during the year. Bhutan.

The blockade of the Bor Abors was maintained, and during the year two military police expeditions were required, one against the Apa Tanangs, and the other to Soma in Manipur. Both expeditions were successful in the punishment of raiders and the release of captives. In other directions the relations with Assam frontier tribes were peaceful during the year. Assam Frontier and Manipur.

The young Raja of Manipur and his half brother continued their education at Mayo College. Meanwhile the State is being administered under British superintendence. Its financial condition is now satisfactory. The indemnity has been paid off, and there was a balance of 1¼ lakhs of rupees, and a surplus of revenue over expenditure during the year.

In October 1897 the South Lushai Hills were transferred from the Bengal Administration to that of Assam, and combined in one charge with the North Lushai Hills. The only event of importance during the year 1896–97 was an outbreak of insubordination in the military police battalion on the Southern Hills. The policy of disarming the people continued to be enforced. A small tribute is peaceably levied from the population. The Lushai Hills no longer form what is technically "foreign" territory, as they have been annexed to British India. They will, however, continue to be administered as a Scheduled tract under special laws, owing to the wild and backward condition of the people. Lushai Hills (Assam and Bengal).

The Chin Hills have also been annexed to British India and are to be ruled under the Chin Hills Regulation, which, however, had not come into force before the end of 1896–97. During that year there were no political disturbances and few serious crimes within the tract, while trade and intercourse with the neighbouring settled districts of Burma increased. The disarmament of the tribesmen was pushed on. Reduction of expenditure was effected by various reforms, and particularly by the withdrawal of the military garrison of the Southern Chin Hills, its place being taken by the military police. On the Pakokhu border some operations were necessitated by the raids of the previous year. The punitive measures were carried out without opposition. Chin Hills (Burma).

The establishment of law and order in the Kachin Hills proceeded steadily during the year 1896–97. During the rains the Kachins are left mainly to themselves, but in the dry season tours are undertaken by the political officers, who punish offences, exact tribute, and settle disputes. The question of establishing a more regular system of government is under consideration. No punitive expeditions were necessary in 1896–97, and there was little serious crime to be dealt with. Tribute was collected without difficulty. Disputes with Kachins beyond the frontier were, on the whole, successfully arranged in consultation with the Chinese officials. But the difficulty of guaranteeing our subjects from raids from over the border was a cause of friction and serious inconvenience. Kachin Hills (N.E. Frontier).

On 4th February 1897, an Agreement* was signed at Peking modifying the Convention between Great Britain and China of 1st March 1894. This agreement transferred to Great Britain certain additional border tracts, of which the largest was Kokang. It also included concessions, other than territorial, to Great Britain, the principal being the opening of the West River to trade. China Frontier Agreement.

* *See* Treaty, Series No. 7, 1897, c. 8654.

FRONTIERS, NATIVE STATES, AND TRANSMARINE INTERESTS.

Shan States.

The record of progress in the Shan States, particularly in the southern section, was very satisfactory. There was a great expansion of trade. The famine in the dry zone of Burma caused an acute demand for rice, and the new roads in the Shan States plateau enabled traders to carry grain from much longer distances than was possible formerly. Tributes were paid punctually, and more than one chief was granted remission of tribute in consideration of his expenditure on public works, especially roads. There was little crime of any kind and very few serious offences. A small civil police force was sanctioned for the protection of the railway. Progress was made with the construction of the Kunlong line. The trade at Kunlong showed considerable increase towards the end of the year. In the Southern States there was absolute peace and tranquillity. In the north the North Hsenwi State was somewhat troubled by disturbances that took place in the adjoining Chinese tract of Mongka. The Superintendent of the Northern States also met with opposition in a tour undertaken by him to the Chinese frontier of Manglun and through the Wa States. His force was obliged to engage in hostilities with some of the offending Wa villages.

French border.

On the Mekong affairs have settled down satisfactorily. Cis-Mekong Keng Cheng has been incorporated with Keng Tun; and there has been no friction between the Burmese authorities and those of France on the other side of the river.

Siam.

Relations with Siam call for no comment.

NATIVE STATES.

NATIVE STATES.

The population of the Native States, based on the census of 1891, may be taken at 63½ millions, and their aggregate revenue at 21 crores of rupees. The number of their military forces, mostly of a somewhat undisciplined and inefficient kind, but including the Imperial Service troops, is returned at 250,000.

Imperial service troops.

The actual strength of the latter force on 1st July 1897 is shown in the margin. The cost to the States concerned for the maintenance of these troops in 1896-97 was Rx. 569,000, while Rx. 22,000 were paid by the Government of India in connection with their inspection and training. The reports for 1896-97 again testify to their general efficiency and keen desire for active service, a desire which was in some instances gratified in the autumn of 1897, when certain of the contingents took part in the frontier campaigns. The record of their services in those operations will belong to the Statement for 1897-98. The principal change in organisation in 1896-97 occurred in the Kashmir corps. By gradual reduction to the strength of 150 the efficiency of the Kashmir Lancers has been improved. The infantry has been reduced to four battalions of 700 men each; two of these will be stationed at Jammu and two at Gilgit. They will interchange stations every two years. Better arrangements are to be made for their training at Jammu; and in Gilgit better control and training will be made possible by concentrating them in a few stations, instead of distributing them in small detachments amongst a number of outposts.

Cavalry	8,027
Artillery	304
Sappers and Miners	313
Infantry	8,259
Camel Corps	496
Transport Corps (men's)	1,064
Total	18,463

Dacoity.

The suppression of dacoity in the Native States is a matter of imperial concern, and at times necessitates interference on the part of the paramount Power, particularly in those tracts of Native States' territory where the jurisdictions of the chief are much intermingled, and where the dacoits have, therefore, great advantages in organising their crimes with comparative impunity. For the State of Hyderabad and the large Agencies of Central India and Rajputana there has long existed an organisation connected with the Government of India, charged with the duty of suppressing thuggee and dacoity. During the past two years various changes have been introduced in order to secure a larger measure of co-operation from the States themselves with the department of the Imperial Government which deals with organised violent crimes. In some places agencies under the control of the Political Officers have been established, and in other places, as in Rajputana, a member of the departmental establishment has been placed at the disposal of the Resident to deal with reports received and compile statistics. While it is desired to avoid interference with the police systems of the States and to maintain the local authority of the Political Officers, it is hoped that the experience of the Thuggee Department may assist to repress the growth of dacoities.

A comparison of the last three years shows an unsatisfactory increase in this class of crime, 389 cases being reported in 1894, 448 in 1895, and 684 in 1896. Part of the increase is accounted for by a change in the system of reporting, and by the increasing accuracy of the reports; but the greater part is no doubt a real increase, attributable to the effects of scarcity. It is noticeable that the number of arrests rose from 874 to 1,954, and that of convictions from 74 to 348. NATIVE STATES.

The following are the principal figures of the finance of the Hyderabad Assigned Districts for the last seven years :— Hyderabad

YEAR.	Gross Land Revenue.	Total Revenue.	Expenditure.				Total Expenditure.	Surplus of Revenue over Expenditure.	Payments to His Highness the Nizam.
			Public Works.	Civil Administration.	Military.	State Railways.			
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
1890-91 - -	652,474	1,009,595	118,530	394,531	337,606	8,605	859,272	150,323	146,473
1891-92 - -	639,976	1,027,632	110,532	410,757	378,424	9,489	909,202	118,430	130,697
1892-93 - -	625,944	985,448	121,177	416,095	361,597	9,123	907,992	77,456	83,104
1893-94 - -	637,390	1,017,475	109,966	432,531	392,819	8,567	943,883	73,592	65,000
1894-95 - -	643,312	1,011,949	110,696	446,493	397,472	10,381	965,042	46,907	116,205
1895-96 - -	680,905	1,044,825	102,131	433,453	384,796	12,059	932,439	112,386	29,173
1896-97 - -	667,563	1,007,556	81,189	456,046	404,306	9,794	951,335	56,221	72,481

It will be seen that in this period expenditure has increased, and the surplus available for payment to the Nizam has considerably declined. The decrease of revenue in 1896-97 was due largely to the general scarcity.

The finances of the Hyderabad State suffered also from the same cause. The decline of the surplus received by the Nizam's Government from the Assigned Districts, combined with a steady increase in the personal and household expenditure of the Nizam, have resulted in severe financial embarrassments. An officer lent by the Financial Department of the Government of India was, at the end of the year under review, appointed to make an examination into the financial position of the State. The total revenues amount to about 4 crores, and there has been a tendency during recent years for the expenditure to exceed this amount. During 1896-97 the Nawab, Sir Vikar-ul-Umra, continued to be the Prime Minister of the Nizam.

The following statistics of the revenue and expenditure in Mysore are taken from the Dewan's Memorandum of Moral and Material Progress and Condition of the State for the year 1896-97 :— Mysore.

RECEIPTS.	Rx.	EXPENDITURE.	Rx.
Land Revenue	934,706	Interest	22,260
Mining Leases	105,150	Land Revenue	158,502
Forests	95,807	Forests	53,088
Excise	329,104	Excise	19,961
Assessed Taxes and Sayer	55,450	Administration	66,781
Stamps and Registration	86,772	Palace	140,000
Interest on Investments	57,919	Law and Justice	92,290
Mysore State Railway Earnings	61,166	Police	84,769
Other Receipts	42,055	Education	52,491
		Tribute and Assignments	368,061
		Military	95,624
		Public Works and Sanitation	256,748
		Railways, Guaranteed Interest	70,000
		Railway Construction and Surveys	27,337
		Other Expenditure	183,722
TOTAL - - Rx.	1,768,128	TOTAL - - Rx.	1,691,634

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The payment of the full tribute due by Mysore commenced in 1896-97, and increased this head of expenditure by 10½ lakhs. At the same time, owing to an unfavourable season, there was a falling off under Land Revenue, Forest, Excise, and Sayer to the aggregate amount of nearly 6 lakhs. Notwithstanding these drawbacks, the surplus of the year was about 7⅔ lakhs. The income from gold-mining leases increases largely year after year. As is usual in a year of scarcity, there was an increase in crime, the rise of prices pressing hardly on the population. The sixteenth Assembly of Representative Raiyats and Merchants met in October for the annual session of six days. It consisted of 251 Hindus, 12 Mahomedans, and 5 Europeans. Three hundred and seventy subjects are said to have been discussed in the course of the week.

Baroda.

The report for the year ending 31st July 1894, which was dealt with in last year's Statement, is the last general report of the Baroda Administration that has been received. Complaints from girassias and subordinate tenure-holders of Baroda, some of whom enjoy a British guarantee, to the effect that they are not receiving justice from the Durbar, continue to occupy the attention of the Governor-General's Agent. There is continued progress in education not least in the direction of technical education. The Baroda police were successful in dealing with organised crime in the Kathiawar districts of the State during the year under review.

Rajputana.

The following is a Table of the Rajputana States, with their revenues, and their expenditure on public works (where this is reported), viz. :—

STATE.	Area in Square Miles.	Population in 1891.	Actual or Estimated Revenue for last Two Years.		Public Works Expenditure in 1896-97 (as far as known).
			Previous Year.	Last Year.	
			Rx.	Rx.	
Udaipur (Mewar)	12,861	1,862,478	(375,000)	(375,000)	35,304
Dungarpur	1,440	165,400	18,233	20,351	—
Banswara, &c.	1,937	212,269	20,978	24,148	—
Pratapgarh	959	87,975	43,044	42,507	—
Jaipur	15,349	2,832,276	652,758	665,564	71,873
Kishangarh	874	125,516	40,987	42,662	—
Lawa	19	3,360	(450)	(450)	—
Jodhpur (Marwar)	37,445	2,521,727	592,361	567,976	111,211
Jesalmer	16,039	115,701	18,128	14,133	—
Sirohi	1,966	188,977	28,356	38,233	—
Bikaner	23,090	831,955	284,187	238,257	118,132
Bundi	2,225	295,675	75,532	72,230	4,500
Tonk	1,415*	198,934*	169,452	161,890	4,500
Shahpura	406	63,646	28,269	35,188	—
Bharatpur	1,961	840,303	(270,000)	(270,000)	65,900
Dholpur	1,156	279,890	(125,000)	(125,000)	—
Karauli	1,229	156,587	45,844	47,747	—
Alwar, &c.	3,051	767,786	267,537	274,900	54,484
Kotah	3,803	526,267	248,311	241,168	41,774
Jhalawar	3,043	343,601	(154,946)	153,978	7,999
TOTAL	130,268	12,220,343	3,459,373	3,411,382	514,675

* Excluding the Tonk pergunnas in Central India.

The harvests of 1896-97 in Rajputana were deficient, but not so deficient as to amount to famine, except in Bikaner and Jesalmer. In these half-desert States the people may be said to be accustomed to failure of crops. They generally emigrate in the dry season and do not depend entirely on agriculture for subsistence. In Dholpur, and parts of Tonk and Bharatpur also, there was severe distress. It is to be noticed that in none of the Rajputana States was the export of grain forbidden.

The most important event in the history of the year was the decision in respect to Jhalawar. In last year's Statement the deposition of the late Maharaja was recorded. In 1896-97 it was finally decided that the greater part of the State of Jhalawar should lapse to Kotah, out of which it had

originally been formed, and that a small portion, including the capital, Jhalrapatan, should continue to exist as a separate principality under Thakur Bhowani Singh, a relative of the late chief. This decision was not carried into effect till after the close of the year under review. NATIVE STATES.

No other change occurred in regard to the management of Rajputana, except that the small State of Lawa was placed under the control of its chief.

The administration of most of the States is regarded as satisfactory, and generally their finances are in a sound condition. Improvement is recorded in regard to Bundi, Dungarpur, and Banswara. Financial embarrassment is reported in Jesalmer, owing to a succession of bad years. In Dholpur and Tonk, in which also scarcity was acute, it was found necessary to resort to loans to meet the expenditure of the year, Dholpur borrowing 2½ lakhs and Tonk 1½. In addition to this sum, Tonk received a loan of 17 lakhs from the Gwalior Durbar to cover the cost of the section in Tonk territory of the Goona-Bara Railway. In Bikaner progress was made with the irrigation scheme drawn from the Ghaggar river. An important reservoir is also in progress at Rangarh in Jaipur. In Jodhpur (Marwar) a settlement of the land revenue is reported to have been brought to a conclusion, by which an increased revenue of 20 per cent. will be secured. Dacoity was more prevalent in Rajputana in 1896-97 than in the preceding years. In this connection it may be observed that the police and criminal administration of Udaipar (Mewar), and of some of the other States, leaves considerable room for improvement. Precautions against plague were taken in Rajputana during 1896-97, and, so far as that year was concerned, with success.

The mints of the Rajputana State coined little silver during the year under review, excepting, however, the Jaipur mint, from which 16¾ lakhs of rupees were issued.

In Central India the Indore mint coined 42½ lakhs of rupees; but the mints of other Native States in the Agency were not worked. The adoption of British Indian currency in Bhopal is believed to be a prelude to its adoption in other States. During the year the local currencies were still further depreciated by the necessity for paying in British rupees for the large imports of grain. CENTRAL INDIA.

The year 1896-97 was one of famine. Anxiety was at its height when the year closed. An area of 28,790 square miles, with a population of 3,986,000 persons, was afflicted; and the resources of 36 of the States of the Agency were strained to meet the emergency. Never before had the chiefs of Central India tried to counteract famine by an organised system of relief works and poorhouses; it is therefore satisfactory that, with one or two exceptions, these chiefs accepted the advice of the political officers of the Government of India, and adopted the relief measures and methods authorised by the Famine Codes of British India. In the earlier stages of the famine there was much emigration from Native States territory to British India; but before the end of March 1897 this emigration had ceased, 170,000 persons were on relief works, and 25,000 in poorhouses in the Central India States, and it could be said that the famine was under control. It is noticeable that, contrary to the advice of the Governor General's Agent, the Maharaja Holkar prohibited the export of grain from Indore territories. The Minister's report on that State argues that this measure was beneficial to Indore subjects, who were themselves outside the famine-stricken area. The rise of prices in Indore was due to the demand from the distressed populations of adjoining States. If, however, the example of the Indore State had been generally followed, the distress in the famine area would have been greatly intensified. The worst of the distress was in Bundelkhund. There the resources of the States were strained to the uttermost. That in these States the famine was eventually fought with success was owing largely to the loans advanced to the chiefs, particularly to the chiefs of Orchha, Samthar, Panna, and Chhatarpur, by the Gwalior State under the sanction and guarantee of the Indian Government. The value of the new Ujjain-Bhopal Railway, which was opened to traffic in April 1896, was at once made plain. It carried large quantities of grain and returned a handsome dividend in its first year of working.

There was one outbreak of plague in Gwalior, which caused 50 deaths. By the adoption of prompt and energetic measures the disease was prevented from

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spreading; not one case occurred outside the village originally attacked, and the outbreak was at an end in three months.

Certain noticeable changes took place in the Central India Agency during 1896-97. The local corps, viz., two regiments of Central India Horse, the Bhopal Battalion, and the Malwa Bhil Corps, were incorporated in the regular army, and were transferred from the Foreign Department of the Government of India to the charge of the Commander-in-Chief; the Sipri cantonment, which was no longer required for imperial purposes, was transferred to the Gwalior Durbar; the Western Malwa Agency was transferred from Agra to Neemuch and re-organised as the Malwa Agency; and, owing to the abolition of the Goona Agency, the petty estates of Rajgarh, Paron, Garha, Umri, Bhadaura, and Sirsi were transferred to the charge of the Resident at Gwalior.

The increase of dacoity in Gwalior is attributed in part to the weak and insufficient police organisation, and to the apathy of district officials. In this respect the Gwalior Government is open to criticism. In other directions, however, the administration of Maharaja Sindhia is worthy of high praise, and the approval of Her Majesty the Queen-Empress has recently been testified by his investiture with the insignia of the first class of the Order of the Star of India. The resources of the State are great, the revenue amounting to 150 lakhs, and the balance to $10\frac{1}{4}$ crores, of which rather more than half is invested. The liberal appropriation of these balances to the construction of railways in the Agency, and to advances to adjoining Native States to aid them in combating famine, is deserving of the highest credit.

In Indore the revenue of the year is stated at $71\frac{1}{4}$ lakhs, and the expenditure at less than 49 lakhs. The Governor-General's Agent reports that the Maharaja's Minister administers the State with ability; that the government compares favourably with that of the majority of Native States; that law and order are well maintained; and that the people are contented.

In Bhopal the Minister, Munshi Imtiaz Ali, died in November 1896. Complaints against his administration had recently been numerous. For some time after his death the administration was conducted by Her Highness the Begum, but she afterwards appointed a new Minister approved by the Government of India. The currency difficulties of Bhopal have already been referred to.

In February 1897 the Raja of the junior branch of the Dewas State was invested with ruling powers.

Punjab.

The following are the principal Punjab States and their areas, populations in 1891, and approximate revenues in 1896-97:—

STATE.	Area in Square Miles.	Population in 1891.	Approximate Revenue in 1896–97.
			Rx.
Patiala	5,419	1,583,521	682,622
Bahawalpur	15,000	650,042	160,000
Jind	1,259	284,560	63,464
Nabha	928	282,750	70,000
Kapurthala	620	252,617	200,000
Mandi	1,000	166,923	36,861
Nahan (Sirmur)	1,096	124,134	51,200
Maler Kotla	167	75,755	30,202
Faridkot	643	115,040	35,625
Chamba	3,216	124,032	34,400

There is little calling for notice in the year's history of the Punjab States. Jind, Kalsia, Dujana, and Maler Kotla continued under the management of councils or administrators during the minority or mental incapacity of their chiefs. Ill-health and consequent neglect of public business on the part of the chiefs cause anxiety and difficulties in Bahawalpur, Mandi, Sirmur, Faridkot, and Chamba. In the latter State and in Keonthal disturbances have been threatened by a land agitation, the people expecting to receive the concessions granted to agriculturists in the neighbouring British districts. During this period of scarcity the Sirhind Canal proved of immense utility to the cultivators and a source of profit to the Patiala State. The revenue of the State consequently improved.

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North-West Provinces.

The two States under the Lieutenant-Governor of the North-West Provinces are Rampur and Tehri or Garwhal. In the former the year was important, in that it saw the young Nawab invested (on 1st June 1896) with full powers, the State Council being at the same time abolished and a Minister of the State appointed. Other changes in the administration of the State were also carried out. The year was one of drought, bad harvests, and agricultural distress. The land revenue is farmed, and some lessees threw up their leases in despair. Notwithstanding these circumstances the finances of the year showed a surplus of $2\frac{3}{4}$ lakhs, which was added to the enormous balance already in hand of 230 lakhs. A regular settlement of the land revenue and the abolition of the system of selling houses or villages by auction are reforms which require to be taken up by the State. The administration generally is satisfactorily conducted. In Tehri the financial situation is sound, the balance of the State standing at $7\frac{1}{2}$ lakhs, and the revenue of 3 lakhs, showing a satisfactory surplus over expenditure. Some improvement in administration is recorded, but in this State too the advantage of a new survey and settlement of the land revenue are being urged upon the Raja.

Bengal.

The Maharaja of Hill Tipperah died in December 1896. He was succeeded in the chiefship by his eldest son. The rains were insufficient for the food crops, and there was some distress. The revenue of the State was, nevertheless, satisfactory, owing to a large outturn of cotton and oil seeds. The expenditure of the year was larger than usual, owing to charges connected with the illness and funeral of the late chief. The year closed with a balance of Rs. 96,000.

The Maharaja of Cooch Behar spent part of the year in Europe. In his absence the State was efficiently managed by the superintendent, a retired Indian civilian, and the Council. The year's accounts of the State showed a small surplus—income, Rx. 216,000; expenditure, Rx. 213,000. High prices and poor crops caused considerable pressure among the cultivators.

The year 1896-97 was one of distress in the tributary States of Orissa and of Chota Nagpur; the revenue of the States, however, tended to increase, the aggregate for the former group being $15\frac{1}{2}$ lakhs and for the latter group Rs. 2,60,000. Relief measures were organised where want was greatest, but the surplus of previous bountiful harvests, and the abundance of edible forest produce, combined with a scanty population, made the scarcity less severely felt in these States than in the neighbouring British districts. In Gangpur, in the Chota Nagpur group, discontent, which had long been gathering force, broke out into open disturbances which the Raja was impotent to quell. The Deputy-Commissioner of Singbum was deputed to try the offenders and inquire into their grievances. Some disorder also occurred in Jashpur, which was put down by the Raja. The administration of the Chota Nagpur chiefs, though regarded as generally satisfactory, is stated to require improvement in details. In the Orissa States, particularly in Moharbhanj, civilisation is more advanced. Justice is fairly administered; there is progress in education; forest preservation is conducted scientifically, and land settlements are in progress. The Rajas of Daspalla and Nayagarh died within the year, and a succession to the chiefship of Athgarh was recognised.

Central Provinces.

Steady and sustained progress, a statesmanlike regard for the welfare of the people committed to their charge, and generally efficient administration in all departments, are stated to have been the leading characteristics of the history of the feudatories in this province during 1896-97. Two exceptions are mentioned, Kanker and Chhuikadan, which failed particularly in regard to their police arrangements. In Chhuikadan the authorities had gone so far as to harbour the perpetrators of crimes committed in neighbouring States and in British territory. It was while the State was under the cloud of discredit due to such misdoings that the chief died. He was one of the old school, not unpopular with his subjects, but not disposed to adopt even necessary reforms in his administration. The succession to the chiefship will belong to the history of 1897-98. The only other event in regard to the administration of these States that need be noticed was the appointment of an European officer to the charge of the Bastar State, a measure which is stated to have produced excellent results. The failure of crops in the Central Provinces did not extend to the more eastern of the feudatory States, which enjoyed fair harvests combined with exceptionally high prices. The northern and western States, however, suffered. The

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satisfactory financial position of all the States enabled them to meet the difficulty of dealing with famine, and relief measures were not withheld wherever required. The chiefs of Khairagarh and Sakti were particularly prompt and liberal in their efforts to relieve distress. At first there was an inclination on the part of the chiefs to resort to prohibition of the export of grain from their States, and by some this measure was adopted. In the construction of roads, and in the spread of education, good progress was recorded during the year. Police administration is the department of government which at present requires special attention.

Madras.

The two important States of this presidency are Travancore and Cochin, the reports of which are drawn up for the Malayalam year, August 1895—August 1896. The following are the figures for the trade and revenue of the two States for the two last years :—

	Trade.		Revenue.		Balance at end of Year.	
	1894-95.	1895-96.	1894-95.	1895-96.	1894-95.	1895-96.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Travancore - - -	2,723,536	2,431,759	880,867	895,899	895,451	976,332
Cochin - - -	407,399	337,080	209,618	192,629	437,176	443,057

The year was not one of prosperity, as is indicated by the figures for trade and revenue. In educational matters Travancore holds the highest rank, and it is satisfactory to find an increase from 2,816 institutions, with 131,294 pupils, in 1894–95, to 3,355 institutions, and 156,530 pupils, in the year under review. In Cochin the increase was from 993 schools and 30,697 pupils, to 1,062 and 31,882, respectively. In the case of both these States it is a question whether the accumulation of credit balances has not gone far enough, if not too far. A more generous expenditure on public works might well be undertaken. In the year under review the expenditure under this head amounted to 16 lakhs in Travancore and 4 lakhs in Cochin. In Cochin various reforms are under contemplation, including improvement of the salaries of underpaid officials, a new revenue survey, reorganisation of the Forest Department, and the construction of a railway.

In the Godavari, Vizagapatam, and Ganjam Political Agencies the season was unfavourable to the crops, but not unhealthy. There is not much to record of the other States subordinate to Madras, except that they suffered from the prevailing scarcity. It is noticed that the financial affairs of the State of Banganapalle are by no means satisfactory, owing to the Nawab's extravagance on his own household.

Bombay.

The Bombay Government exercises control over some 350 Native States, many of which possess but few attributes of sovereignty. Their total area exceeds 64,600 square miles; their population in 1891 was 8,085,433, and their revenues in 1896-97 aggregated Rx. 4,031,000. Some financial figures regarding the more important States are given below :—

STATE.	Revenue in 1896-97.	Expenditure on Public Works.
	Rx.	Rx.
Cutch - - - - - - - -	199,906	13,926
Palanpur - - - - - -	63,981	4,750
Radhanpur - - - - - -	73,958	8,289
Idar - - - - - - -	66,661	3,073
Junagad - - - - - -	270,000	35,618

STATE.	Revenue in 1896-97.	Expenditure on Public Works.
	Rx.	Rx.
Navanagar	257,500	9,175
Bhavnagar	418,900	49,838
Porbandar	65,000	27,775
Dhrangadhra	68,130	6,654
Morvi	119,107	22,166
Gondal	100,000	28,382
Cambay	64,085	7,102
Rajpipla	146,674	39,676
Jânjira	39,375	6,893
Savantvadi	44,264	5,063
Kolhapur	428,295	56,200
Sangli	99,835	7,358
Khairpur	121,271	—

Some of the Kathiawar States, and those in the Deccan and Southern Mahratta country, were affected by the prevailing scarcity, and, even where crops were not much deficient, distress ensued from the abnormally high prices. Relief measures were adopted by Bhavnagar and Gondal in Kathiawar, and by Kolhapur and all the Southern Mahratta States. Cutch and Palanpur suffered from outbreaks of bubonic plague. A band of Mekrani outlaws that had for some time been disturbing the peace of Junagad were successfully attacked and destroyed by the Baroda police and Kathiawar Agency police acting in concert.

Among the deaths recorded during the year were those of the Raja of Rajpipla, Maharana Shri Gumbirsingji, who for misconduct had been deprived of ruling powers for some years past, and of the Raj Saheb Shrimant Shahaji Maloji of Akalkot, who is described as having been a sympathetic and kindly ruler. The eldest son of the late Raja of Rajpipla was installed as chief in May 1897, and the temporary British administration terminated. In Akalkot the question of succession had not been decided at the close of the year.

The trade of the Kathiawar ports showed a considerable expansion as regards exports. Their total trade for the year was valued at 543 lakhs. At the Cutch ports, where the value of trade amounted to 95½ lakhs, there was a decline of exports exceeding the increase under imports.

Notwithstanding a year of scarcity, the revenues of most of the States improved, and generally their administration is favourably reviewed by the Local Government. Marked progress was made in Khairpur, which till recently had stood away from the influences of the British system of administration. A further stage has been reached in the Cutch-Morvi controversy, but no settlement has yet been reached, or is even in sight.

TRANSMARINE DEPENDENCIES AND INTERESTS.

TRANSMARINE DEPENDENCIES AND INTERESTS.

Aden and Somali Coast.

The progress of trade at Aden and on the Somali Coast is indicated by the following figures, which take no account of Government stores and treasure. In 1896–97 the advance recorded in previous years met a temporary check.

ADEN TRADE.

——	1893-94.	1894-95.	1895-96.	1896-97.
Imports:	Rx.	Rx.	Rx.	Rx.
By Sea - - -	3,490,881	3,778,326	3,934,012	4,103,091
By Land - -	318,103	363,275	393,989	302,770
Treasure - -	642,024	610,560	744,836	821,628
Total - - -	4,451,008	4,752,161	5,072,837	5,227,489
Exports:				
By Sea - - -	2,937,790	3,058,994	3,414,920	3,260,327
By Land - -	168,045	188,358	187,548	208,412
Treasure - -	581,537	680,710	792,225	685,756
Total - - -	3,687,372	3,928,062	4,394,693	4,154,495
GRAND TOTAL - -	8,138,380	8,680,223	9,467,530	9,381,984

SOMALI COAST TRADE.

——	1893-94.	1894-95.	1895-96.	1896-97.
Berbera and Bulhar:	Rx.	Rx.	Rx.	Rx.
Imports - -	227,741	215,134	257,104	235,517
Exports - -	236,536	209,374	208,481	214,266
Zaila:				
Imports - -	132,367	280,631	365,644	351,287
Exports - -	154,623	284,387	415,337	466,531
Total - - -	751,267	989,526	1,246,566	1,267,601

Relations with the tribes, both near Aden and on the Somali Coast, were friendly and entirely peaceful. The record of crime was below the average. Aden was more healthy in 1896–97 than in the preceding few years. At the Somali Coast ports the dispensaries are becoming increasingly popular.

Since the close of the year under review, the treaty with King Menelik of Abyssinia has been published, by which the boundary of the Somali Coast Protectorate is defined. The revenue of the Protectorate in 1896–97 amounted to Rx. 31,894, the expenditure being Rx. 23,486.

The extent of commercial movements on the Oman and Persian Gulf littoral is indicated by the following figures, the greater portion of which represent British or British Indian trade:—

	1894-95.	1895-96.	1896-97.
Muscat:	$	$	$
Exports	1,628,580	1,419,450	1,909,300
Imports	2,079,600	2,288,760	2,879,500
Total	3,708,180	3,708,210	4,888,800
Bushire:	Rx.	Rx.	Rx.
Exports	1,011,303	951,888	748,529
Imports	1,835,111	1,830,449	1,340,108
Total	2,846,414	2,782,337	2,088,637
Lingah:			
Exports	1,020,595	920,430	847,220
Imports	1,178,152	1,056,830	722,536
Total	2,198,747	1,977,260	1,569,756
Bunder Abbas:			
Exports	487,147	584,856	306,250
Imports	981,877	860,857	618,420
Total	1,469,024	1,445,713	924,670
Bahrein:			
Exports	770,293	700,665	
Imports	777,069	696,618	814,481
Total	1,547,362	1,407,283	1,639,537
Arab Coast:			
Exports	672,650	877,650	1,084,150
Imports	485,620	547,000	614,057
Total	1,158,270	1,424,650	1,698,207
Mohammerah:	£	£	£
Exports	86,545	91,457	129,116
Imports	98,060	110,631	143,906
Total	184,605	202,088	273,022

As is seen from these figures, there was a very large increase in the trade of Muscat, and some increase at Bahrein and on the Arab coast. But at all the Persian ports the decline was very serious. This occurred notwithstanding an abnormal expansion of the illicit trade in arms at all the ports mentioned. The year was not favourable to trade. There was more than the usual disorder in the interior, aggravated by the assassination of the Shah. Famine and distress in India, and the outbreak of plague, followed by quarantine restrictions at the great trading centres of Bombay and Karachi, may be held accountable for the falling off in the Gulf trade.

TRANSMARINE DEPENDENCIES AND INTERESTS.

At the end of the year the exchanges stood at 50¾ krans to the 1*l.*, and 312 krans equal to Rs. 100. The sea customs receipts of the Persian Government at the southern ports are stated at 2,145,000 krans, of which 115,000 were drawn from Bushire.

The political history of Muscat in 1896-97 was less disturbed than in the previous year. With the support of a British ship of war, the Sultan succeeded in restoring his authority at Dhafar.

There was more than usual disorder and fighting on the shores of the Persian Gulf, subject to the Persian Government, the assassination of the Shah, on 1st May 1896, adding a new incentive to turbulence and rebellious movements. Near Charbar disputes relating to the subsidies paid by the Indian Telegraph Department to the local chieftains led to the display of violence towards British Indian subjects, and, after the close of the year under review, to the murder of one of the officials of the Telegraph Department.

Slave Trade.

As to the slave trade, what was said in last year's Report is equally true of 1896-97.

ARMY.

ARMY.

The sanctioned establishment for 1896-97 was as follows:—

British Troops	73,112
Miscellaneous Officers	924
Native Troops (including European Officers)	145,565
Total	219,601
Corresponding Total for 1895-96	219,708

The actual strength of the Army on the 1st April 1897 was as follows:—

PUNJAB COMMAND.			
British.			
Cavalry (3 regiments)	1,942		
Artillery (22 batteries and companies)	3,248		
Infantry (14 battalions)	14,595		
		19,785	
Native.			
Cavalry (15 regiments)	9,328		
Artillery (5 batteries)	1,065		
Infantry (40 battalions)	36,481		
		46,874	
			66,659
Carried forward			66,659

Brought forward - - -		66,659
BENGAL COMMAND.		
British.		
Cavalry (3 regiments) - - - - -	1,946	
Artillery (27 batteries and companies) -	4,300	
Engineers - - - - - - - -	47	
Infantry (17 battalions) - - - -	17,871	
	24,164	
Native.		
Cavalry (11 regiments) - - - -	6,948	
Artillery (2 batteries) - - - -	495	
Sappers and Miners (8 companies) - -	1,437	
Infantry (25 battalions) - - - -	22,806	
	31,686	
		55,850
MADRAS COMMAND.		
British.		
Cavalry (2 regiments) - - - -	1,238	
Artillery (15 batteries and companies) -	2,393	
Engineers - - - - - - - -	54	
Infantry (10 battalions) - - - -	10,352	
	14,037	
Native.		
Cavalry (3 regiments) - - - -	1,790	
Sappers and Miners (9 companies) - -	1,506	
Infantry (32 battalions) - - - -	26,289	
	29,585	
		43,622
BOMBAY COMMAND.		
British.		
Cavalry (1 regiment) - - - - -	631	
Artillery (24 batteries and companies) -	3,741	
Engineers - - - - - - - -	55	
Infantry (11 battalions) - - - -	11,039	
	15,466	
Native.		
Cavalry (7⅝ regiments) - - - -	4,749	
Artillery (2 batteries) - - - - -	476	
Sappers and Miners (5 companies) - -	830	
Infantry (31 battalions) - - - -	24,169	
	30,224	
		45,690
TROOPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA.		
*Hyderabad Contingent.**		
Cavalry (6 regiments) - - - -	2,081	
Artillery (4 batteries) - - - -	521	
Infantry (6 battalions) - - - -	5,013	
	7,615	
Body guards (Governor General's and Governors').	265	
Resident's escort, Nepal - - - -	95	
	360	
		7,975
TOTAL - - -		219,796

* The Hyderabad Contingent is not included in the "Sanctioned Establishment" shown above.

ARMY.

The total of the Native Army Reserves in India on 1st April 1897 was 16,172.

The net expenditure on the Army in 1896-97 was—

In India	Rx.	16,437,200
In England	£.	4,133,338
Exchange	Rx.	2,731,450
Total	Rx.	23,301,988
Total in 1895-96	Rx.	24,420,146

The number of Volunteers in the whole of India on 1st April 1897 was as under:—

Command.	Enrolled Strength.	Efficient.
Punjab	1,923	1,713
Bengal	12,443	11,613
Madras	9,263	8,477
Bombay	5,837	5,581
	29,466	27,384

On the 1st of April 1896 the number of enrolled Volunteers was 29,276, of whom 26,952 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1896-97 was 1,130.

During the year 1896-97 there were no changes of importance in the pay or organisation of the army in India.

Reports of the alarming prevalence of venereal disease among the British troops in India led the Secretary of State to appoint, in November 1896, a Departmental Committee, under the presidency of the Earl of Onslow, G.C.M.G., Parliamentary Under-Secretary of State for India, "to examine the official returns of venereal disease among British troops stationed in India, and to report what changes, if any, have taken place in recent years in the prevalence of such disease and in its character and intensity; to obtain and report any information which may be available with regard to the presence of venereal disease, and its character and intensity, in foreign armies."

The report of this Committee was presented in February 1897. It disclosed a most alarming increase of venereal disease, and especially of syphilis, the aggravation of this latter form of disease appearing to date directly from the partial suspension of the lock hospital rules in 1885. The abolition of the modified cantonment rules of 1890, which followed upon the report of Mr. Russell's Committee of 1893 (*see* M. M. Progress Report for 1893-94, page 175), appeared to have further intensified the evil; and H.M.'s Government, recognising that there was "a close connection between the withdrawal of the above measures and the increase of venereal disease, especially syphilis," decided that fresh remedial measures were imperatively necessary.

The Secretary of State accordingly instructed the Government of India, in a military despatch, No. 25, of 26th March 1897, to draw up new cantonment rules which should subject venereal disease, in all cantonments in India, to the same measures as were adopted under the cantonment rules of 1895 for the prevention of the spread of all other contagious and infectious diseases. Strict instructions were at the same time issued, to guard against the revival of those practices which had brought discredit upon preventive measures in the past, and had led to their abandonment; and attention was drawn to the importance of diminishing, as far as possible, the sources of temptation to immorality in and about cantonments, and of improving the moral and physical condition of the British troops in India.

ARMY.

There were no military operations of importance in India during 1896-97.

Early in 1896, serious disturbances having broken out in the British East Africa Protectorate, the Foreign Office applied for the services of an Indian infantry regiment, and the 24th Bombay Infantry was accordingly sent to Mombasa in March. The rising was stamped out with very little actual fighting, but the physical difficulties of the country in which the campaign took place were very great, and the climate bad. The only casualties, except the drowning of two men, were caused by the latter. The regiment returned to India in July. The whole of the expenses, ordinary and extraordinary, connected with the despatch of this regiment to Africa were borne by imperial revenues.

In May 1896, at the request of H.M.'s Government, a brigade of all arms of the Indian Army was sent to the Red Sea to garrison Suakin and Tokar during the advance of the Egyptian forces up the Nile. The brigade was 2,500 strong, and was commanded by Brigadier-General C. C. Egerton, C.B., D.S.O. It returned to India in November and December 1896. The ordinary charges were borne by India, *i.e.*, all charges which would have fallen to India if there had been no Suakin expedition. All extraordinary charges were borne by imperial revenues.

APPENDIX I.

REVIEW OF MUNICIPAL AND LOCAL ADMINISTRATION.

pp. ii to xxxi.

APPENDIX II.

TABLES OF NET REVENUE AND EXPENDITURE.

pp. xxxii to xl.

REVIEW OF MUNICIPAL ADMINISTRATION.

Extract from the Proceedings of the Government of India in the Home Department (Municipalities),—under date Simla, the 24th October 1896.

RESOLUTION.

MUNICIPAL ADMINISTRATION.

As a sufficient period has now elapsed to enable some judgment to be formed on the results of the legislation which in 1883–85, following on the Resolution in the Home Department Nos. 17—747–759, dated 18th May 1882, systematised throughout India the methods of local self-government in force in the different Provinces, it appears to the Governor-General in Council desirable that a general review of the several systems, and of the outcome of their work, should be circulated for the information of Local Governments and Administrations. In order to render this review of greater utility, and with a view to partially explaining the differences which characterise the methods in force, a short summary is given of the laws in the different Provinces and of the changes which have been effected in them since 1887. The present Resolution is confined to a review of municipal administration; and the subject of Local Boards administration will be examined in orders to be issued hereafter.

2. The municipal enactments in force in 1882 outside the Presidency towns were, in *Madras*, Madras Act III. of 1871 (the Towns Improvement Act), in *Bombay*, Bombay Act VI. of 1873, in *Bengal*, Act V. of 1876 (B.C.), in the *North-Western Provinces and Oudh*, Act XV. of 1873, in the *Punjab*, Act IV. of 1873, in the *Central Provinces*, Act XI. of 1873, and in *Burma*, Act VII. of 1874. In *Assam* the Bengal Codifying Act, V. of 1876 (B.C.), was applied and remains in force there to the present day in 11 out of the 14 Municipalities of the Province. In only three has it been found desirable to apply Act III. (B.C.) of 1884. Act XV. of 1873 (the North-Western Provinces and Oudh Municipal Act) was applied to *Ajmere* in 1874 and to *Coorg* in 1882. Finally, the Municipalities in the *Berars* were organised under the Punjab Act, IV. of 1873.

3. The issue of the orders contained in the Resolution of the 18th May 1882 led to a general remodelling of the law so as to make its provisions conform to the principles enunciated by the Government of India. The Acts noted in the margin* of the several Legislatures were the immediate result, and remain to the present time the basis of municipal government in the different Provinces concerned. In Coorg the Municipalities continue to be administered under Act XV. of 1873, while in the Hyderabad Assigned Districts the "Berar Municipal Law" was introduced by a Notification in the Foreign Department No. 3938–I., dated 5th November 1886.

* Madras: Madras Act IV. of 1884.
Bombay: Bombay Act II. of 1884.
Bengal: Act III. of 1884 (B.C.).
† N.-W. P. and Oudh: Act XV. of 1883.
† Punjab: Act XIII. of 1884.
Burma: Act XVII. of 1884.

† These Acts did not repeal Acts XV. of 1873 and IV. of 1873, but constituted *with them* the law under which Municipal administration was conducted in the North-Western Provinces and Oudh and in the Punjab. In the latter Province Act IV. of 1873 fell into desuetude on the passing of the Act of 1884, and was repealed by Act No. XII. of 1891, prior to the passing of Act XX. of the same year.

4. Under the laws in force prior to 1882 the principal of election had in a few cases only been adopted in mofussil Municipalities. One of the most important changes introduced into the legislation subsequent to that date was the general recognition and adoption of this principle in the administration of municipal towns. The principle had not been brought into practical operation in Madras before 1879, and then only experimentally in a few places; in Bombay no effect had been given to it until 1881; and in Bengal it had been tried under Act II. of 1873 (B.C.), only in the three towns of Serampore, Burdwan, and Kishnaghar. In the North-Western Provinces the principle had been in operation since 1873, but was not systematically enforced; and the Central Provinces were practically the only portion of India in which popular representation was reported, up to that time, to have been successfully introduced. It was by the laws enacted during 1883 and 1884 that the policy of appointing an unofficial Chairman and Vice-Chairman, elected by the Commissioners themselves, was definitely established.

5. The following is an outline of the changes in the law which have been introduced in the different Provinces since 1884:—

In Madras, the District Municipal Act, IV. of 1884, is now being amended by the Madras Legislative Council; but there has as yet been no change in the municipal law of that Presidency.

MUNICIPAL ADMINISTRATION.

In Bombay, Acts IV. of 1885 and I. of 1888, respectively, introduced some minor modifications into (*a*) the disqualifications for the office of Municipal Commissioners, and (*b*) their term of office, whether appointed or elected.

In Bengal, Act III. (B.C.) of 1886 introduced into Act III. of 1884 certain provisions in regard to the sale of adulterated food, and conferred on the Commissioners powers of entry for the inspection and seizure of unwholesome articles; but the only really important legislation which has been undertaken since 1884 in Bengal in modification of the law relating to mofussil Municipalities is Act IV. (B.C.) of 1894. Under that Act the franchise is extended, and the Bengal Sanitary Board is formally recognised as an agency by means of which facilities are afforded to Municipal Committees in arranging for the furtherance of schemes of drainage and water-supply. Provision is made for the co-operation of two or more Municipal Committees in such matters, and for the allotment of costs between the Joint Committees; additional powers are given to Municipal Commissioners to intervene to prevent danger to the public health or safety; and the authority of the Commissioners in regard to building regulations is more clearly set forth. During the current year a further amending Bill has been under the consideration of the Bengal Council.

Act I. of 1895 passed by the North-Western Provinces and Oudh Legislative Council did not materially affect Acts XV. of 1873 and XV. of 1883 and none of the Acts noted in the margin, amending the Burma Municipal Act, 1884, introduced any change in principle. For Upper Burma, however, a Regulation (V. of 1887) was passed enabling Committees to be formed, but leaving the appointment of members, and the imposition of taxes entirely in the hands of Government. In the Punjab and the Central Provinces only have the municipal laws which were in force ten years ago been entirely superseded by fresh enactments. In the former Province, Act XIII. of 1884 has given place to Act XX. of 1891; while in the latter, Act XI. of 1873 has been repealed by Act XVIII. of 1889, which is now the law governing the administration of Municipalities in the Central Provinces. The changes effected in the Punjab municipal law by the legislation of 1891 did not affect the principles upon which the Act of 1884 had been framed, but aimed at rendering the provisions of the latter less complex, and more easily adaptable to the very widely differing circumstances obtaining in the Municipalities established at hill stations and in large commercial centres such as Delhi and Amritsar, and in the numerous country towns with a small and backward population. Although Act XVIII. of 1889 differs widely from the law which is superseded in the Central Provinces, it is in all essential principles the same as the Punjab Act XX. of 1891.

Act XIX. of 1888.
„ XXI. of 1891.
„ XIV. of 1894.

6. In order to enable Local Governments and Administrations to compare their own system and its results with those of other Provinces, three statements have been prepared, and are annexed to this Resolution, showing the constitution, income, and expenditure of Municipal Boards in 1886–87, the earliest year for which full information is available, and in 1894–95. From these statements the Municipalities of Upper Burma have been omitted. It is also necessary to explain that all reference to the Municipalities of the Presidency Towns of Calcutta, Bombay, and Madras, and also of Rangoon, is excluded from this Resolution and from the statements annexed to it, which are intended to afford a comparative view of the progress made in mofussil Municipalities only. The figures for Bengal also exclude the Suburban Municipality which was amalgamated with the Calcutta Corporation in 1888.

7. The most noticeable feature in the first of these statements is the fact that the aggregate number of Municipalities in India has not increased. On the contrary, there has been a small decrease in the North-Western Provinces and Oudh, the Punjab, and the Central Provinces. In the Punjab the decrease is from 190 to 149, but the number of the remaining Municipalities, notwithstanding this considerable reduction, is larger than in any other Province except Bombay. The population of the 41 places in which the municipal system of administration was discontinued was only 25,000. They were in fact, as in the few similar cases in the North-Western Provinces and Central Provinces, mere villages to which a simpler plan of management was better suited. This is not, therefore, a result which indicates any failure in the experiment of local self-government. In some places, as was to be expected at the initiation of a new policy, the mistake was made of extending the municipal law without sufficient regard to the fitness of the townspeople to carry out a somewhat elaborate organisation. In other provinces, where the authorities were more cautious in admitting towns to the municipal system, there has since been a steady development of it. Madras has added two Municipalities since 1886; Bombay, 13; Bengal, 9; and Burma, 10; and there will doubtless be in the future a circumspect but regular advance throughout India to meet the needs of the growing town populations. Although there has been a decrease in the total number of Municipalities in India from 747 to 733, the total population within municipal limits has increased from 12,154,465 to 13,298,613.

8. The number of Municipalities, relatively to the population of the Province, is very much larger in the Bombay Presidency than elsewhere. The proportion of the population living within municipal limits to the whole population of Presidency is 12·6. Assam, Bengal, and Madras are, in the order named, the provinces in which, compared with the general population, municipal populat[illegible] n is least. This is accounted for by the small

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number of towns in those Provinces. On the other hand, the elective principle is less developed in Bombay. The Municipalities of the North-Western Provinces and Oudh, and the Central Provinces, contain the largest proportion of elected members. The percentage of native members on the Boards, which, however, varies very little, is largest in the Punjab, Bombay, the Central Provinces, and Bengal. It is small in Madras, where the percentage of European members is 16·6.

9. The second statement attached to this Resolution compares the various sources of income enjoyed by the Municipalities of the different Provinces.

It will be seen that the income from mofussil municipal taxation throughout India has in seven years increased from a little over a crore, to about a crore and a half of rupees, and that the total income from all sources together has increased from Rs. 1,59,53,858 to Rs. 2,48,92,308. The increase in the one case is 35·1 per cent., and in the other 56 per cent. Nothing could show more clearly the great expansion of municipal administration which has taken place during this short period. By way of comparison, it may be stated that in 1876–77, the income from taxation alone was Rs. 97,12,153, and from all sources Rs. 1,23,72,210. The ratio of increase has therefore been very much more rapid since the development of municipal institutions under Lord Ripon's legislation.

The incidence of taxation per head of municipal population has increased from Re. 0-14-1 to Rs. 1-1-5. The rate is highest in the Punjab, where it amounts to Rs. 1-6-6; in Bombay, Rs. 1-5-6; and in Assam, Rs. 1-2-11. Excluding the Assigned Districts and Coorg, the rate is lowest in Bengal, where it amounts to only Re. 0-13-7, and in Madras, where it is Re. 0-13-10. The proportionate rate of increase during the past seven years is lowest in Bombay and Madras and is highest in Assam.

10. Of the items of taxation contributing to the general increase, the conservancy-cess, which forms a larger proportion of the total in Bengal than elsewhere, has increased by 120·9 per cent. Of the classified taxes it is satisfactory to notice that the smallest increase has been due to tolls, while the taxes on houses and lands, and on animals and vehicles, realised together, Rs. 31,50,598 in 1894–95, against Rs. 21,96,563 in 1886–87. The increase in the house and land tax was largest in Bombay, where, however, it still forms an inconsiderable proportion of the total income. Of the "Miscellaneous receipts," the most noteworthy are those from "markets and slaughter-houses," the large increase from Rs. 7,58,109 to Rs. 11,32,100 being chiefly due to Burma.

11. The increase of loan receipts from Rs. 4,00,991 to Rs. 28,52,153 is the result of the impulse lately given to the construction of waterworks in the larger Municipalities, and it will be observed that there is a corresponding increase under the head of water-rates from Rs. 56,605 to Rs. 5,52,391. The fees from educational and medical institutions, which now furnish a considerable income to the Municipalities of the Bombay Presidency and the Punjab, had no existence in 1886–87.

12. A comparison of the sources of taxation and general income in the different Provinces is conveniently shown in the following summary of the second statement appended to this Resolution :—

	Percentage of Total Income from Municipal Rates and Taxes derived from								Percentage of Total Income excluding Loans and Advances derived from				
	Octroi.	Tax on Houses and Lands.	Tax on Animals and Vehicles.	Tax on Professions and Trades.	Tolls.	Water rate.	Conservancy Tax.	Other Taxes.	Taxation.	Under special Acts.*	Municipal Property.†	Grants from Government and other Sources.	Miscellaneous.
Madras - -	—	46·9	11·2	16·8	23·9	1·2	--	—	59·8	0·3	18·3	18·5	3·1
Bombay - -	52·4	17·7	3·3	0·3	6·8	6·9	7·8	4·8	69·6	1·0	17·5	8·6	3·3
Bengal - -	--	35·3	8·2	1·6	6·0	1·9	19·5	27·5	79·9	3·5	10·3	4·2	2·1
North-Western Provinces and Oudh.	81·6	3·2	1·3	4·3	1·4	5·4	0·6	2·2	80·7	2·0	14·2	1·9	1·2
Punjab - - -	93·0	5·0	1·1	—	--	0·1	0·2	0·6	71·7	0·9	13·9	6·4	7·1
Central Provinces -	71·7	4·0	0·1	1·8	0·9	6·4	10·3	4·8	68·8	3·6	11·0	5·0	11·6
Lower Burma - -	—	58·8	7·2	—	11·3	3·6	11·3	7·8	38·7	1·7	56·5	2·4	0·7
Assam - - -	—	47·4	5·9	--	20·0	11·6	15·1	--	49·9	10·8	17·0	19·3	3·0
Hyderabad Assigned Districts.	—	2·2	0·8	49·8	6·8	20·5	19·9	—	39·1	2·9	32·8	19·6	5·6
Coorg - -	--	56·1	3·2	40·7	--	--	--	--	41·4	25·2	31·3	2·1	--

* Pounds, hackney carriages, licenses for sale of spirits, &c.
† Rents of lands, conservancy receipts, fees from markets, municipal fines, interest on investments, &c.

The most striking features of this table are—

(*a*) the very large proportion of the municipal income derived from octroi in the Bombay Presidency, the North-Western Provinces and Oudh, the Punjab, and the Central Provinces, while elsewhere octroi does not form an item of municipal revenue;

(*b*) the large proportion of the income derived in Madras, Bengal, Burma, Assam, and Coorg, from the tax on houses and lands;

(*c*) the fact that only in Madras, Coorg, and the Hyderabad Assigned Districts does the tax on professions and trades form an appreciable part of the revenue;

(*d*) the large proportion of the income derived from tolls on roads and ferries in Madras and Assam;

(*e*) the lightness of municipal taxation in Burma and the Assigned Districts, where a large portion of the income is derived from the rent of lands, markets, and the like; and

(*f*) the large contributions by Government to the municipal income in Madras and Assam, and by local funds in the Assigned Districts.

13. These remarkable differences in the methods of municipal taxation are for the most part an inheritance of past customs, which on the whole are probably most suitable to the locality, and have at least the sanction and support of usage. But it is interesting and useful that these marked differences of system should be plainly on record, and Local Governments have now a convenient opportunity of noting the methods of municipal administration, which have been pursued more or less successfully in other parts of India. It was observed in paragraph 26 of the circular letter from the Home Department No. 2—96 to 103, dated the 28th September 1877, that—

> In 1870 the reports showed that there was a want of fertility in devising new forms of municipal taxation, and some inclination was evinced to copy the imperial income tax, and introduce it for municipal purposes. Such a tax is, however, not suitable for municipalities. Within the past five years the Government of India have been assured by Local Governments and Administrations of the rapid advance of the members of municipal committees in self-government, and of the great and growing interest they exhibit in municipal taxation and other matters. It would, therefore, seem that members of the municipal corporations should best be able to interpret the views of their fellow-citizens, and that they should not find it difficult to devise suitable forms of local self-taxation.

14. Octroi has the merit of being one of the least unpalatable forms of taxation to the people at large. It is an indirect tax, paid to the tax collectors at the barriers by traders, who are accustomed to it and quite able to resist illegal exaction, but it is exposed to the danger of becoming, unless carefully watched and controlled, a tax on through traffic. The principles which should govern the administration of this tax were laid down in Circular No. 4440—4447, dated 6th November 1868, and were reiterated at length in the orders of 1877 already quoted. In addressing the Secretary of State, in a Despatch reviewing the whole subject of octroi taxation, on 8th September 1888, it was observed that—

> The standards of consumption of the various taxable commodities which Local Governments prescribe cannot claim to be accurate, but they afford a rough and approximate test of the extent to which any particular article may legitimately be subjected to octroi in each municipality. Wherever the rates of consumption of any taxable commodity in towns situated on the main trade routes show an excess above the prescribed standard of consumption, the excess is assumed to be in a rough way the measure of the extent to which the octroi on that article is becoming a transit duty; and we urge in those cases either the establishment of bonded warehouses for the protection of the through trade, or the abolition of the octroi on the through traffic in the commodity in question. In towns off the main trade routes, where the trade is more distributory than through, the standards are not so rigidly insisted on, because the people who use the market roads, &c., may reasonably be expected, even though they do not live in the town, to contribute to a certain extent to municipal expenditure devoted to the maintenance of those objects of which they reap full advantage. At the same time we insist on low rates of octroi in such towns, and provide that any one claiming a refund, unless it be of an insignificant amount, shall receive it. The maximum non-refundable duty is fixed so low that no appreciable hardship is inflicted on the contributor.

15. These maxims govern the administration of octroi, wherever that system is in use. Bonded warehouses have everywhere been established, and wherever refunds on any article bear a proportion so high to the receipts as to prove the existence of a large through traffic, the habitual course is to exclude that article of trade from the octroi schedule. It has already been stated that the working of octroi needs careful control, but the Governor-General in Council is satisfied, from the reports which come annually before him, that the necessary supervision and vigilance are exercised in the interests of trade.

16. The tax on "houses and lands" forms a large percentage of the municipal income in Provinces where octroi is not levied. This tax is, in Madras, levied under section 63 of Madras Act IV. of 1884, at the rate of 7½ per cent. on the annual value of the property, and in Bengal, under section 85 (*b*) of Act III. of 1884 (B.C.), at the same rate. In the Madras Presidency it realised Rs. 6,79,473, or 46·9 per cent. of the total income, while in Bengal, where it amounted to Rs. 8,16,912, it represented only 35·3 per cent. In Bengal, however, there is an alternative tax levied under section 85 (*a*) of the Act, "upon persons occupying holdings within the Municipality, according to their circumstances and property," which yielded no less than Rs. 5,89,379, and is included in column 10 of the second statement under the head of "Other taxes." This tax is of very old standing in the Province, and is found to be applicable to the circumstances of

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small Municipalities. It partakes partly of the nature of the tax under section 85 (*b*), "a rate on the annual value of all holdings," and partly of the nature of a "tax on professions and trades." Taking the two taxes levied under section 85 together, the proceeds amount, in Bengal, to no less than 60·7 of the total income from municipal rates and taxes.

In Burma, Assam, and Coorg the tax on houses and lands is also one of the most important sources of the municipal income.

Of the 41 Municipalities in Burma (excluding Rangoon), 26 were constituted under Act XVII. of 1884, and 15 under the Upper Burma Municipal Regulation V. of 1887. The latter leaves the nature of taxation which may be imposed under it entirely to the discretion, subject to the orders of the Governor-General in Council, of the Local Government, and the taxes imposed have naturally followed, as far as circumstances have admitted, those imposed under the Burma Municipal Law in the older part of the Province. Owing to the divergence of the conditions of Lower Burma, Chapter IV. of the Burma Municipalities Act XVII. of 1884, which deals with taxation, differs considerably from the corresponding portions of the laws in force in India. Section 41 (1) (*A*) provides only for different forms of direct taxation, and sections 42, 43, and 44 for a "water-tax," a "lighting-tax," and a "scavenging-tax" respectively; and though section 41 (1) (*B*) admits of the imposition, with the previous sanction of the Local Government and of the Governor-General in Council, of "any other tax," a reference to the statement attached will show that this provision has practically not been resorted to. In Lower Burma 58·8 per cent. of the income from taxation comes under the heading of a tax on houses and lands.

17. It is only in Madras, Coorg, and the Hyderabad Assigned Districts that the tax on "professions and trades" forms a considerable proportion of the income from taxation. This rate finds a place in the system in every Province except Burma and Assam, but the Madras Presidency is the only one of the larger Provinces in which it forms a material item of the total revenue. The receipts under this head amount to 16·8 per cent. of the taxation imposed. The essential difference between the tax as levied in the Madras Presidency and elsewhere is that in the former the profession-tax, described in section 47 (i) of Act IV. of 1884, as "a yearly tax on arts, professions, trades, and callings, and on offices and appointments" at the rates specified in Schedule A to the Act, is in effect a graduated income-tax, whereas in the other large Provinces it is in the nature of a fixed licence-tax. There are, as has been observed above, material objections to any municipal rate which covers precisely the same ground as an imperial tax.

In Coorg the tax is a licence-fee. Section 41 of the Berar Municipal Law, 1886, follows, in form, section 41 of the Burma Municipalities Act, but includes provision for a tax "on persons practising any profession or art, or carrying on any trade or calling in the Municipalities."

18. The next remarkable feature noticed in paragraph 12 of this Resolution was the comparatively large proportion of the municipal income which is derived in Madras and Assam from "tolls (on roads and ferries)." No explanation of this is suggested by a perusal of the papers connected with the several reports, and attention is drawn to the circumstance in order that, should the question of modifying the system of taxation arise, Local Governments may be in possession of information as to any striking differences in the items composing municipal revenue in different Provinces.

19. The amount of income derived from a water-rate is nowhere at present, except in the assigned districts, a large proportion of the total revenue. But with the progress of waterworks in the larger Municipalities, this item, which already represents a considerable sum in the Bombay Presidency and the North-Western Provinces and Oudh, may be expected to steadily increase.

20. A scavenging-tax, entered in column 3 as a "conservancy-cess," is levied everywhere except in Madras and Coorg. In Bengal the realisations amount to over 4½ lakhs, or 19·5 per cent. of the total revenue from taxation, while in the Bombay Presidency they are nearly 2½ lakhs, and by general consent this is a most suitable and proper form of municipal taxation.

The amount of contributions from Local Governments and Local Funds to Municipalities fluctuates very much in the different Provinces and depends principally on the assistance rendered in particular years towards costly projects of water supply and drainage. The amount has shown a continued tendency to increase in Madras and Assam and the Assigned Districts.

21. Passing on now to the statement of municipal expenditure the Governor-General in Council observes that the total expenditure increased during the seven years under review from Rs. 1,57,54,721 to Rs. 2,37,91,286 or by 51 per cent. It is satisfactory to notice that the increase during the same period in the cost of office establishments, 31·2 per cent., and of collection of taxes, 18·3 per cent., has been in much lower proportion than that of the general expenditure. The increase in the annual expenditure on the maintenance of medical institutions, &c., now amounting to 15¾ lakhs, has been no less than 65·4 per cent., while that on waterworks (establishment and repairs) exceeds 100 per cent., and on conservancy 39·9 per cent. The total outlay on the last two

objects of municipal expenditure amounted in 1894–95, exclusive of new works, to Rs. 50,83,402, as compared with Rs. 34,47,911 in 1886–87. In regard to "Refunds" the Governor-General in Council has in frequent orders recorded his views on the necessity for affording every facility to claimants of refunds of octroi. It is therefore satisfactory to observe that large sums are so expended in the four Provinces levying octroi. An exact comparison between the sums refunded in 1886–87 and in 1894–95 cannot be made, as the statements for the former year were not in this respect uniformly compiled. The refunds for 1894–95 were as follows: Bombay, Rs. 7,40,653; North-Western Provinces and Oudh, Rs. 7,31,390; Punjab, Rs. 2,03,947, and Central Provinces, Rs. 1,57,166.

22. As in the case of municipal income, a comparative statement is given below of municipal expenditure in the several Provinces :—

Provinces.	Percentage of Municipal Expenditure on							
	General Administration.	Public Safety.	Water Supply and Drainage.	Conservancy.	Public Works.	Other Measures for Public Health and Convenience.	Public Instruction.	Miscellaneous.
Madras - - - -	7·8	4·4	17·0	20·3	17·0	14·6	13·2	5·7
Bombay - - - -	10·1	5·6	20·8	18·4	13·5	10·6	14·7	6·3
Bengal - - - -	9·0	5·4	28·0	23·4	16·0	10·1	3·6	4·5
North-Western Provinces and Oudh.	10·6	13·1	25·5	19·7	12·0	6·3	3·0	9·8
Punjab - - - -	11·8	16·3	8·1	13·6	10·0	14·3	15·3	10·6
Central Provinces - -	13·3	0·9	20·4	21·8	13·0	11·5	12·7	6·4
Lower Burma - - -	11·9	5·3	1·4	20·6	22·6	28·8	7·4	2·0
Assam - - - -	10·0	2·9	21·7	28·8	20·8	9·7	3·2	2·9
Hyderabad Assigned Districts	7·4	5·3	12·3	28·0	15·0	20·3	7·9	3·8
Coorg - - - -	5·8	2·4	32·8	17·9	7·0	25·9	6·5	1·7

The expenditure on general administration appears to be singularly uniform, averaging about 9 or 10 per cent. on the income throughout India. Improvidence in the expenditure on establishments is not unknown in the administration of committees in other countries and the Governor-General in Council observes with satisfaction that in India generally it has been kept within very moderate limits. The expenditure on watch and ward is very high in the Punjab and North-Western Provinces. In the Central Provinces the whole of the police charges for the Municipalities has been assumed by the Local Government. Except in the Punjab, Burma, and the Assigned Districts, a large portion of the annual expenditure everywhere is now concerned with projects of water supply and drainage. The Municipalities of the North-Western Provinces, Assam, and Bengal are very backward in their contributions to the municipal schools; it will be seen that in this matter the Punjab Municipalities head the list, and in no other Province is so much done for the local hospitals. Expenditure on markets and slaughter-houses has been large in recent years in Burma, while the rents derived therefrom have correspondingly increased.

23. It will be observed that under the heading "Public Safety" the Municipalities in the Punjab and the North-Western Provinces and Oudh contribute to Police, Rs. 5,38,986 and Rs. 4,66,765, respectively, representing a percentage on their total expenditure of 13·3 and 10·2, while in other Provinces the contributions are insignificant. The explanation of this distinction is as follows. In accordance with the principle adopted by the Government of India in 1864 that the expense of police for town populations should be defrayed by local funds, Municipalities were required to defray the cost of all police employed on duties the performance of which is necessitated solely by the existence of the town. These are commonly designated "Watch and Ward" in contradistinction to those of "Law and Order." This policy continued till the year 1881, when the orders issued to Local Governments on the 10th and 13th October were published by the Finance Department for general information by Notification* No. 3622, dated 13th October 1881. The purport of those orders was, as expressed in the letter to the Bengal Government, "to see municipal bodies relieved altogether of the charge for police, an equal amount of expenditure on education, medical charity and, if possible, public works of local interest, being transferred to them with as full control as may be practically expedient over the details of such expenditure." The relief from the burden of police charges was

Resolution No. 2245, dated 31st August 1864.

* Pages 492 to 499 of the *Gazette of India*, 1881.

MUNICIPAL ADMINISTRATION.

thus made contingent on its being arranged that Municipalities should undertake an equal charge under other heads of expenditure.

The Government of the North-Western Provinces and Oudh did not however, act on those orders, and considered that Municipalities should at any rate pay for watch and ward, and on this principle the municipal police charges continue to be borne by Municipalities in those Provinces.

In the Punjab it was first of all intended to act on the views enunciated by the Government of India, but to provide for the contingency of Municipalities not accepting equivalent charges, section 74 of the Punjab Municipal Act, XIII. of 1884, made Municipal Committees liable for the requisite police establishment, while section 75 only permitted the Local Government to relieve the committees of such charges in the event of their contracting, on such terms as might be agreed on, to undertake equivalent charges under other heads. These provisions have been reproduced in sections 79 and 80 of the Punjab Municipal Act, XX. of 1891.

The municipal expenditure in Upper Burma is not shown in the statements; but it may be stated that section 9 (*a*) of the Upper Burma Municipal Regulation V. of 1887 makes the police establishment a first charge on the Municipal Fund, on the principle that the responsibility for protection should be enforced in the case of Municipalities in their earliest stage of development and until adequate arrangements can be made for transferring other equivalent charges for other services, together with the responsibility for their administration. In Upper Burma therefore the Municipalities contribute Rs. 1,11,021 for the maintenance of the police.

With the exception of Municipalities in the North-Western Provinces and Oudh, the Punjab, and Upper Burma, municipal bodies have been largely relieved of police charges in accordance with the views expressed in 1881.

24. The expenditure on account of road construction appears to have been everywhere satisfactory and to show an increase over previous year's disbursements. It has been noticed that the municipal income from tolls was, in the Madras Presidency, relatively greater than elsewhere. It was laid down by the Government of India in paragraph 21 of the Resolution in the Home Department Nos. 4440 to 4447, dated 6th November 1868, and in paragraph 4 of Home Department Circular, Nos. 2–96 to 103, dated 28th September 1877, that tolls should not be levied except for the use of some means of communication provided at the expense of the Municipality; and it was more definitely stated, in letter No. 28, dated 8th March 1886, to the Bombay Government that the revenue derived from the levy of tolls should be exclusively laid out in road improvements. In view of these orders the sums expended by Municipalities in the Madras Presidency on roads do not appear to have been on a sufficiently liberal scale. A reference to column 7 of statement 2, and to column 19 of statement 3, will show that in the Madras Presidency only did the disbursements on roadmaking fall short of the receipts from tolls. Elsewhere the expenditure was—in some cases largely—in excess of the receipts.

25. The Governor-General in Council believes that these details of comparative income and expenditure will be of interest and value, not only to Local Governments, but to Municipal Committees and to all who are interested in municipal affairs, and will give material for considering possible improvements in local methods of taxation and in methods of expenditure. He has observed with much satisfaction the marked advance in self-government during the last ten years which this examination has disclosed, and the activity, intelligence and general economy with which the municipal bodies have improved the conservancy services, the water supply, the drainage, the street paving, the lighting, and the many conveniences of the towns in their charge. These objects are all excellent, and some of them absolutely necessary to the health and comfort of the residents, and he is assured that in the furtherance of all such projects the committees will continue to show the energy and the assiduity which they have shown in the past, to the great advantage and benefit of their fellow-citizens. He is, however, also assured that where municipal taxation has been lately and considerably increased projects which involve an addition to it will be considered with circumspection and a careful regard to the circumstances of the taxpayers.

No. 1.

STATEMENT showing the POPULATION and CONSTITUTION of MOFUSSIL MUNICIPALITIES in INDIA during the Years 1886–87 and 1894–95.

1. Name of Province.		2. Number of Municipalities.	3. Population within Municipal Limits.	4. Number of Members of Committee.								Name of Province.	
				a	*b*	*c*	*d*	*e*	*f*	*g*	*h*		
				Ex-officio.	Nominated.	Elected.	Total.	Official.	Non-officials.	Europeans, Eurasians.	Natives.		
Madras	1886-87	54	1,445,202	54	488	308	850	206	644	170	680	1886-87	Madras.
	1894-95	56	1,675,949	56	433	382	871	194	677	145	726	1894-95	
Bombay	1886-87	157	1,891,405	71	1,279	892	2,242	630	1,387	187	2,055	1886-87	Bombay.
	1894-95	170	2,267,353	—	1,484	907	2,391	668	1,723	190	2,194	1894-95	
Bengal	1886-87	137	2,447,414	—	934	1,069	2,003	320	1,683	178	1,825	1886-87	Bengal.
	1894-95	146	2,725,434	3	966	1,171	2,140	348	1,792	195	1,945	1894-95	
North-Western Provinces and Oudh	1886-87	109	3,184,480	22	293	1,260	1,575	254	1,321	152	1,423	1886-87	North-Western Provinces and Oudh.
	1894-95	103	3,265,042	36	304	1,257	1,597	309	1,288	184	1,413	1894-95	
Punjab	1886-87	190	2,107,077	228	685	884	1,797	344	1,463	141	1,656	1886-87	Punjab.
	1894-95	149	2,082,593	258	608	803	1,669	323	1,346	124	1,545	1894-95	
Central Provinces	1886-87	59	646,593	8	165	467	640	136	504	43	597	1886-87	Central Provinces.
	1894-95	53	690,805	6	170	439	615	138	477	53	562	1894-95	
Burma (Lower)	1886-87	16	227,549	35	69	94	195	51	144	41	154	1886-87	Burma (Lower).
	1894-95	26	334,723	69	151	101	321	87	234	74	247	1894-95	
Assam	1886-87	13	70,018	20	44	74	138	57	81	28	110	1886-87	Assam.
	1894-95	14	84,727	21	74	54	149	55	94	32	117	1894-95	
Hyderabad Assigned Districts	1886-87	7	118,074	23	78	8	109	43	66	31	78	1886-87	Hyderabad Assigned Districts.
	1894-95	11	156,476	—	80	90	170	52	112	29	135	1894-95	
Coorg	1886-87	5	16,653	19	38	—	57	19	38	6	51	1886-87	Coorg.
	1894-95	5	15,511	18	30	10	58	18	40	6	52	1894-95	
Total	1886-87	747	12,154,465	480	4,070	5,056	9,606	2,050	7,331	977	8,629	1886-87	Total.
	1894-95	733	13,298,613	467	4,300	5,214	9,981	2,192	7,783	1,032	8,936	1894-95	
Increase per cent.		—	9·4	—	5·7	3·1	3·9	6·9	6·2	5·6	3·6	Increase per cent.	
Decrease per cent.		1·9	—	2·7	—	—	—	—	—	—	—	Decrease per cent.	

No. 2.

STATEMENT showing the INCOME of MOFUSSIL MUNICIPALITIES in INDIA during 1886-87 and 1894-95.

NAME OF PROVINCE.		By Balance in Hand at the Close of previous Year.	Income during the Year from Octroi, after deducting Refunds.	Conservancy Cess.	License on Trades.	Tax on Houses and Lands.	Tax on Animals and Vehicles.	Tolls and Ferries.	NAME OF PROVINCE.
		1.	2.	3.	4.	5.	6.	7.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Madrás	1886-87	3,82,175	—	—	1,55,925	4,58,195	81,996	3,16,717	Madras.
	1894-95	6,59,877	—	—	2,41,742	6,79,473	1,62,084	3,45,740	
Bombay	1886-87	13,72,590	15,38,434	1,86,779	7,709	2,73,871	81,527	1,54,042	Bombay.
	1894-95	17,86,795	15,94,235	2,37,169	9,268	5,38,286	1,00,796	2,06,908	
Bengal	1886-87	3,45,906	—	1,82,701	7,469	7,72,709	1,33,014	1,31,058	Bengal.
	1894-95	5,09,035	—	4,50,747	36,317	8,16,912	1,88,265	1,38,887	
North-Western Provinces and Oudh	1886-87	4,38,350	18,67,037	15,400	1,39,369	72,328	14,520	20,965	North-Western Provinces and Oudh.
	1894-95	14,68,950	27,73,166	19,318	1,46,445	1,09,623	45,756	46,933	
Punjab	1886-87	14,37,031	22,72,027	6,464	—	99,928	9,145	3,083	Punjab.
	1894-95	9,93,564	27,18,709	5,595	978	1,44,724	33,487	—	
Central Provinces	1886-87	3,79,052	4,99,451	64	13,751	18,795	944	1,870	Central Provinces.
	1894-95	6,43,923	5,55,876	79,685	14,079	30,811	1,109	7,296	
Lower Burma	1886-87	1,16,881	—	998	—	1,41,935	42,676	20,861	Lower Burma.
	1894-95	2,76,065	—	41,002	3	2,12,594	26,147	40,776	
Assam	1886-87	22,858	—	—	—	29,318	2,058	17,897	Assam.
	1894-95	31,472	—	14,137	—	44,519	5,544	18,743	
Hyderabad Assigned Districts	1886-87	55,083	—	—	35,508	935	—	10,415	Hyderabad Assigned Districts.
	1894-95	1,41,553	—	19,114	47,833	2,136	809	6,552	
Coorg	1886-87	2,928	—	—	5,349	7,176	493	—	Coorg.
	1894-95	19,126	—	—	5,197	7,170	403	—	
TOTAL	1886-87	45,52,854	61,76,949	3,92,406	3,65,080	18,30,190	3,66,373	6,76,908	TOTAL.
	1894-95	65,30,360	76,41,986	8,66,767	5,01,862	25,86,248	5,64,350	8,11,835	
Increase per cent.		43·4	23·7	120·9	37·5	41·3	54·0	19·9	Increase per cent.
Decrease per cent.		—	—	—	—	—	—	—	Decrease per cent.

No. 2—*continued.*

STATEMENT showing the INCOME of MOFUSSIL MUNICIPALITIES in INDIA during 1886–87 and 1894–95.

NAME OF PROVINCE.		Other Taxes.	Water Rate.	Lighting Rate.	Total Income from Taxation.	Miscellaneous Receipts.					NAME OF PROVINCE.	
						Realisation under Special Acts.	Proceeds of Lands, &c.	Income from Markets and Slaughter-houses (Rents, Fees, &c.).	Municipal Fines.	Payments for Municipal Services rendered to Individuals.		
		8.	9.	10.	11.	12.	13.	14.	15.	16.		
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
Madras	1886–87	68,369	—	—	10,81,202	10,725	4,288	79,868	16,279	26,032	1886–87	Madras.
	1894–95	—	16,944	—	14,45,983	7,093	19,095	1,53,501	40,924	65,303	1894–95	
Bombay	1886–87	1,79,509	—	—	24,21,871	31,676	80,452	1,13,890	13,820	4,809	1886–87	Bombay.
	1894–95	1,45,555	2,11,928	108	30,44,253	42,121	1,87,468	1,87,536	20,535	30,635	1894–95	
Bengal	1886–87	4,22,758	29,405	—	16,79,114	63,436	5,825	71,514	23,062	25,615	1886–87	Bengal.
	1894–95	6,02,439	44,920	34,998	23,13,485	1,01,470	18,663	60,902	39,092	13,002	1894–95	
North-Western Provinces and Oudh	1886–87	1,25,410	—	—	22,10,029	71,523	3,032	50,887	23,303	4,201	1886–87	North-Western Provinces and Oudh.
	1894–95	74,459	1,82,026	—	33,97,726	83,516	55,136	1,11,994	36,502	17,373	1894–95	
Punjab	1886–87	14,532	1,001	—	24,06,180	3,074	7,597	68,351	9,941	6,458	1886–87	Punjab.
	1894–95	17,007	3,197	—	29,23,647	38,289	31,666	48,575	15,250	46,799	1894–95	
Central Provinces	1886–87	23,431	19,972	—	5,78,278	34,701	849	42,994	3,439	77,115	1886–87	Central Provinces.
	1894–95	37,205	49,634	—	7,75,695	40,745	15,515	42,966	5,371	517	1894–95	
Lower Burma	1886–87	1	2,097	5,156	2,13,724	2,737	303	2,54,621	9,327	—	1886–87	Lower Burma.
	1894–95	—	13,154	28,130	3,61,806	15,627	7,065	4,60,303	13,810	126	1894–95	
Assam	1886–87	—	1,936	—	51,209	16,966	6,687	12,378	1,307	1,001	1886–87	Assam.
	1894–95	—	10,942	—	93,885	20,228	711	20,230	2,015	1,692	1894–95	
Hyderabad Assigned Districts	1886–87	—	2,194	—	49,052	3,441	15,094	51,519	731	12,831	1886–87	Hyderabad Assigned Districts.
	1894–95	—	19,646	—	96,090	7,034	8,601	42,752	885	1,657	1894–95	
Coorg	1886–87	14	—	—	13,032	—	—	12,087	41	—	1886–87	Coorg.
	1894–95	—	—	—	12,770	7,774	76	3,341	61	—	1894–95	
TOTAL	1886–87	8,34,024	56,605	5,156	1,07,03,691	2,38,279	1,24,127	7,58,109	1,01,250	1,58,062	1886–87	TOTAL.
	1894–95	8,76,665	5,52,391	63,236	1,44,65,340	3,63,897	3,43,996	11,32,100	1,74,445	1,77,104	1894–95	
Increase per cent.		5·1	875·9	1,126·5	35·1	52·7	177·1	49·3	72·3	12·0	Increase per cent.	
Decrease per cent.		—	—	—	—	—	—	—	—	—	Decrease per cent.	

No. 2—*continued.*

STATEMENT showing the INCOME of MOFUSSIL MUNICIPALITIES in INDIA during 1886–87 and 1894–95.

NAME OF PROVINCE.		MISCELLANEOUS RECEIPTS.		DEBT.			Fees and Revenue from Educational Institutions.	Fees and Revenue from Medical Institutions.	Other Items.	Total Income of Year, excluding Balance.	Total, including Balance.	Incidence of Taxation per Head of Population.	Incidence of Income per Head of Population.	NAME OF PROVINCE.
		Grant-in-Aid from Provincial or Local Funds.	Conservancy and Road Cleaning (Fees, Sale Proceeds of Night Soil, Street Refuse, &c.).	Loans.	Deposits (Contractors' Salaries Unpaid, &c.).	Advances.								
		17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.	
Madras	1886–87	1,53,281	18,225	42,432	1,32,171	4,239	—	—	1,93,213	17,61,955	21,44,130	0 12 0	1 3 6	1886–87
	1894–95	4,45,670	24,755	1,96,620	2,14,452	81,610	92,442	10,271	1,15,509	29,13,228	35,73,105	0 13 10	2 5 10	1894–95 Madras.
Bombay	1886–87	3,10,938	84,544	14,020	1,29,806	32,044	—	—	2,41,688	34,79,558	48,52,148	1 4 5	1 13 5	1886 87
	1894–95	3,76,612	76,684	1,65,500	2,42,851	2,98,628	1,11,531	22,979	5,62,519	53,59,852	71,46,647	1 5 6	2 5 10	1894–95 Bombay.
Bengal	1886–87	33,707	8,240	74,800	14,056	91,062	—	—	2,20,932	23,11,363	26,57,269	0 11 0	0 15 1	1886–87
	1894–95	122,928	21,899	8,55,000	1,18,034	1,57,567	31,870	14,050	1,77,383	40,45,345	45,54,380	0 13 7	1 7 8	1894–95 Bengal.
North-Western Provinces and Oudh	1886–87	94,862	60,402	41,739	278	150	—	—	3,25,444	28,85,850	33,24,200	0 11 1	0 14 6	1886–87
	1894–95	80,692	1,14,356	12,63,846	5,335	279	15,407	615	3,23,225	55,06,002	69,74,952	1 0 7	1 10 11	1894–95 North-Western Provinces and Oudh.
Punjab	1886–87	2,02,511	88,907	2,28,000	1,393	2,280	—	—	4,43,580	34,68,272	49,05,303	1 2 3	1 10 4	1886–87
	1894–95	2,60,050	1,22,442	94,722	2,143	786	2,00,220	16,711	3,76,822	41,78,122	51,71,686	1 6 6	2 0 1	1894–95 Punjab.
Central Provinces	1886–87	19,633	2,593	—	869	59,707	—	—	70,118	8,90,297	12,69,348	0 14 4	1 6 0	1886–87
	1894–95	56,579	7,104	2,40,000	25,078	42,067	22,639	1,057	1,59,488	14,34,821	20,78,744	1 2 0	2 1 3	1894–95 Central Provinces.
Lower Burma	1886–87	3,24,356	3,014	—	4,148	—	—	—	56,032	8,68,618	9,85,499	0 15 0	3 13 1	1886–87
	1894–95	22,380	7,494	22,500	11,826	651	—	62	46,791	9,70,441	12,46,506	1 1 4	2 14 5	1894–95 Lower Burma.
Assam	1886–87	17,990	1,189	—	1,490	1,922	—	—	1,473	1,13,612	1,36,470	0 11 8	1 9 11	1886–87
	1894–95	36,176	1,810	4,000	—	513	495	—	10,599	1,92,354	2,23,826	1 2 11	2 4 3	1894–95 Assam.
Hyderabad Assigned Districts	1886–87	7,500	—	—	—	—	—	—	7,960	1,48,128	2,03,211	0 6 10	1 4 1	1886–87
	1894–95	48,276	3,241	4,965	61	—	2,748	679	33,828	2,56,314	3,97,867	0 9 10	1 10 2	1894–95 Hyderabad Assigned Districts.
Coorg	1886–87	1,045	—	—	—	—	—	—	—	28,205	29,133	0 12 6	1 9 2	1886–87
	1894–95	640	—	5,000	—	—	310	971	4,886	35,829	54,955	0 13 2	2 4 11	1894–95 Coorg.
TOTAL	1886–87	11,65,823	2,67,114	4,00,991	2,84,211	1,91,404	—	—	15,60,440	1,59,53,858	2,05,06,711	0 14 1	1 5 0	1886–87
	1894–95	14,50,003	3,79,785	28,52,153	6,19,780	5,82,101	4,77,662	67,395	18,01,050	2,48,92,308	3,14,22,668	1 1 5	1 13 11	1894–95 TOTAL.
Increase per cent.		24·4	42·2	611·3	118·1	204·1	—	—	15·4	56·0	53·2	23·7	42·5	Increase per cent.
Decrease per cent.		—	—	—	—	—	—	—	—	—	—	—	—	Decrease per cent.

No. 3.

STATEMENT showing the EXPENDITURE of MOFUSSIL MUNICIPALITIES in INDIA during 1886–87 and 1894–95.

NAME OF PROVINCE.		Balance from previous Year.	Income during the previous Year.	Office Establishment, Inspections, Honorary Magistrate's Establishment, &c.	Collection of Municipal Taxes, including Octroi (Establishment, Purchase of Account Books, Papers, Money, Boxes, Repair of Outposts, &c.).	Fire (Establishment, Purchase of Fire Engines, Buckets, Repairs, &c.)	Lighting (Establishment, Purchase of Lamps, Oil, Repairs, &c.)	Police (Establishment, Purchase of Clothing, Lanterns, &c., Repairs to Outposts).	Registration of Births and Deaths.	Maintenance of Medical Institutions (Dispensary Establishment, Purchase of Medicine).	Vaccination (Establishment).	NAME OF PROVINCE.
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Madras	1886–87	3,82,175	17,61,955	93,948	36,287	488	72,742	—	10,703	1,81,694	13,458	1886–87 Madras.
	1894–95	6,59,877	29,13,228	1,07,247	67,919	857	1,01,016	—	14,480	2,56,518	22,961	1894–95
Bombay	1886–87	13,72,590	34,79,558	1,88,447	1,74,155	30,547	1,61,999	31,121	2,676	1,14,657	13,049	1886–87 Bombay.
	1894 95	17,86,795	53,59,852	2,28,531	2,09,008	49,305	1,90,621	23,144	4,719	3,07,974	26,960	1894–95
Bengal	1886–87	3,45,906	23,11,363	1,54,004	1,13,883	7,928	1,06,740	11,085	6,957	1,98,284	12,354	1886–87 Bengal.
	1894–95	5,09,035	40,45,345	1,86,265	1,46,142	29,552	1,60,596	12,530	—	3,31,052	18,644	1894–95
North-Western Provinces and Oudh	1886–87	4,38,350	28,85,850	89,363	2,54,515	96	81,662	3,97,339	3,617	64,333	14,035	1886–87 North-Western Provinces and Oudh.
	1894–95	14,68,950	55,06,002	1,38,174	3,27,952	122	1,27,319	4,66,765	7,396	1,01,015	24,715	1894–95
Punjab	1886–87	14,37,031	34,68,272	1,57,952	2,56,372	3,641	45,163	4,77,045	6,372	2,32,381	22,825	1886–87 Punjab.
	1894–95	9,93,564	41,78,122	2,14,418	2,36,208	4,221	84,383	5,38,986	7,400	3,52,214	25,607	1894–95
Central Provinces	1886–87	3,79,052	8,90,297	34,358	80,361	871	8,607	505	—	73,056	1,089	1886–87 Central Provinces.
	1894–95	6,43,923	14,34,821	55,195	96,888	1,086	9,106	--	2	83,689	2,123	1894–95
Lower Burma	1886–87	1,16,881	8,68,618	57,461	11,612	727	26,088	—	5,236	68,761	8,101	1886–87 Lower Burma.
	1894–95	2,76,065	9,70,441	85,249	16,918	3,964	46,783	10	7,016	1,14,588	9,916	1894–95
Assam	1886–87	22,858	1,13,612	6,332	9,949	51	1,642	10,378	—	4,909	700	1886–87 Assam.
	1894–95	31,472	1,92,354	9,299	6,830	67	3,767	1,412	114	7,240	821	1894–95
Hyderabad Assigned Districts	1886–87	55,083	1,48,128	6,434	2,745	205	3,973	—	144	4,756	102	1886–87 Hyderabad Assigned Districts.
	1894–95	1,41,553	2,56,314	9,790	3,898	1,177	10,470	—	424	8,016	527	1894–95
Coorg	1886–86	2,928	26,205	1,034	451	—	778	--	—	6,987	—	1886–87 Coorg.
	1894–95	19,126	35,829	1,493	628	--	914	—	12	8,700	544	1894–95
TOTAL	1886–87	45,52,854	1,59,53,858	7,89,333	9,40,330	44,554	5,09,394	9,27,473	35,705	9,49,818	85,713	1886–87 TOTAL.
	1894–95	65,30,360	2,48,92,308	10,35,661	11,12,391	90,351	7,34,975	10,42,847	41,563	15,71,006	1,32,818	1894–95
Increase per cent.		43·4	56·0	31·2	18·3	102·8	44·3	12·4	16·4	65·4	55·0	Increase per cent.
Decrease per cent.		—	—	—	—	—	—	--	--	--	—	Decrease per cent.

No. 3—*continued.*

STATEMENT showing the EXPENDITURE of MOFUSSIL MUNICIPALITIES in INDIA during 1886–87 and 1894–95.

NAME OF PROVINCE.		Water Works, (Establishment, Repairs).	Conservancy (including Road-cleaning and Road-watering).	Refunds (excluding Octroi).	Drainage Works (Establishment, Repairs).	Markets and Slaughter-houses (Establishment, Contingencies).	Public Instruction.	Public Garden (Establishment, Purchase of Seeds, Repair of Wells, Purchase of Bullocks).	Other Charges, (Printing, Rewards, Survey of Lands, &c.).	NAME OF PROVINCE.
		11.	12.	13.	14.	15.	16.	17.	18.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Madras	1886–87	18,203	3,83,821	—	15,271	7,723	4,289	2,22,580	41,626	1886–87 / 1894–95 Madras.
	1894–95	43,158	4,78,883	4,554	26,351	11,560	6,341	3,11,129	3,100	
Bombay	1886–87	1,69,269	6,49,371	13,847	25,884	11,026	42,070	5,06,771	91,319	1886–87 / 1894–95 Bombay.
	1894–95	2,23,618	8,74,742	7,572	63,024	88,267	54,152	6,97,540	17,280	
Bengal	1886–87	1,06,944	5,65,563	626	73,518	5,610	20,375	94,382	38,972	1886–87 / 1894–95 Bengal.
	1894–95	61,072	8,84,861	2,145	71,328	22,908	9,727	1,36,524	6,379	
North-Western Provinces and Oudh	1886–87	12,033	6,02,428	911	24,880	2,734	43,670	94,310	12,688	1886–87 / 1894–95 North-Western Provinces and Oudh.
	1894–95	3,11,619	8,97,945	2,572	43,908	56,432	43,311	1,35,604	4,582	
Punjab	1886–87	40,546	4,47,085	724	99,078	5,066	1,09,717	4,46,953	15,671	1886–87 / 1894–95 Punjab.
	1894–95	96,650	5,25,126	2,843	30,464	18,198	1,32,948	5,90,529	4,928	
Central Provinces	1886–87	50,782	2,01,780	349	11,266	1,486	6,267	84,308	6,069	1886–87 / 1894–95 Central Provinces.
	1894–95	63,057	2,53,699	—	7,197	18,966	11,079	1,47,538	3,524	
Lower Burma	1886–87	13,609	1,08,250	—	3,868	35,063	5,648	1,54,744	5,508	1886–87 / 1894–95 Lower Burma.
	1894–95	13,588	1,96,531	5,085	232	1,31,929	4,858	70,052	2,939	
Assam	1886–87	6,489	23,255	238	5,590	84	456	5,291	4,287	1886–87 / 1894–95 Assam.
	1894–25	24,235	52,699	242	4,012	5,391	117	5,765	153	
Hyderabad Assigned Districts	1886–87	4,136	38,839	66	7,058	6,847	2,489	11,124	1,536	1886–87 / 1894–95 Hyderabad Assigned Districts.
	1894–95	13,541	61,299	857	3,499	18,750	11,046	17,218	1,412	
Coorg	1886–87	—	5,508	—	23	—	130	2,779	—	1886–87 / 1894–95 Coorg.
	1894–95	186	6,893	128	791	631	11	2,512	--	
TOTAL	1886–87	4,22,011	30,25,900	16,761	2,66,436	75,639	2,35,111	16,23,242	2,18,279	1886–87 / 1894–95 TOTAL.
	1894–95	8,50,724	42,32,678	25,998	2,50,806	3,73,032	2,73,590	21,14,411	44,297	
Increase per cent.		101·6	39·9	55·1	—	393·2	16·4	30·3	—	Increase per cent.
Decrease per cent.		—	—	—	6·2	—	—	—	79·7	Decrease per cent.

No. 3—*continued.*

STATEMENT showing the EXPENDITURE OF MOFUSSIL MUNICIPALITIES in INDIA during 1886-87 and 1894-95.

NAME OF PROVINCE.	19. Public Works.			20.	21.	22.	23.	24.	25.	26.	27.	NAME OF PROVINCE.
	Establishment.	Construction and Maintenance of Roads.	Buildings (including Capital Outlay on "Water-supply," "Drainage," "Repairs," &c.).	Contributions to Local or Provincial Funds.	Loans, Instalment paid during the Year.	Interest.	Deposits (Salaries attached, Contractors, &c.).	Advances (on Account of Departmental Works, &c.).	Miscellaneous.	Total Expenditure.	Closing Balance.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Madras - - 1886-87	24,707	2,25,312	1,02,227	46,819	7,527	4,941	1,14,545	4,068	54,540	16,87,519	4,56,611	1886-87 Madras.
Madras - - 1894-95	29,279	2,58,166	4,66,656	40,440	20,082	35,855	2,20,103	31,264	86,344	26,34,263	9,38,842	1894-95 Madras.
Bombay - - 1886-87	22,204	3,01,071	3,06,363	47,738	1,03,101	51,783	1,31,468	47,778	1,39,967	33,77,681	14,74,467	1886-87 Bombay.
Bombay - - 1894-95	27,898	4,54,139	8,60,877	23,866	97,529	1,55,461	2,32,460	2,51,367	3,51,322	55,21,376	16,25,271	1894-95 Bombay.
Bengal - - 1886-87	43,815	3,67,865	1,42,021	5,377	11,373	10,037	9,228	1,17,599	79,974	23,04,514	3,52,754	1886-87 Bengal.
Bengal - - 1894-95	65,736	4,52,097	9,99,102	7,190	39,404	39,762	84,154	1,46,726	1,53,347	40,67,711	4,86,669	1894-95 Bengal.
North-Western Provinces and Oudh 1886-87	29,278	4,18,196	3,52,698	1,82,418,	29,644	9,431	—	2,143	78,569	28,00,991	5,23,209	1886-87 North-Western Provinces and Oudh.
North-Western Provinces and Oudh 1894-95	41,527	4,37,685	8,86,924	1,79,063	88,803	2,04,609	610	621	1,23,846	46,53,119	23,21,833	1894-95 North-Western Provinces and Oudh.
Punjab - - 1886-87	28,398	2,04,219	6,21,133	17,259	32,538	1,22,262	1,044	2,580	2,36,892	36,32,916	12,72,387	1886-87 Punjab.
Punjab - - 1894-95	36,114	2,88,421	2,39,062	1,26,565	1,40,046	1,58,822	2,143	997	1,96,116	40,53,409	11,18,277	1894-95 Punjab.
Central Provinces - 1886-87	6,917	1,11,477	61,238	17,733	13,000	25,191	973	56,497	15,671	8,69,851	3,99,497	1886-87 Central Provinces.
Central Provinces - 1894-95	9,099	1,07,079	2,01,400	11,895	55,446	41,918	27,618	43,975	1,36,746	13,88,325	6,90,419	1894-95 Central Provinces.
Lower Burma - 1886-87	25,208	1,38,544	57,155	11,905	6,700	20,498	4,750	2,461	29,137	8,01,035	1,84,464	1886-87 Lower Burma.
Lower Burma - 1894-95	32,792	1,59,972	22,833	4,226	14,026	8,753	10,792	7,703	13,751	9,84,506	2,62,000	1894-95 Lower Burma.
Assam - - - 1886-87	3,655	25,474	8,769	600	520	733	474	823	3,056	1,23,755	12,716	1886-87 Assam.
Assam - - - 1894-95	5,874	29,687	13,000	209	6,873	724	—	720	11,108	1,90,359	33,467	1894-95 Assam.
Hyderabad Assigned Districts - - 1886-87	3,132	11,289	21,119	200	7,000	—	—	26	3,389	1,36,609	66,602	1886-87 Hyderabad Assigned Districts.
Hyderabad Assigned Districts - - 1894-95	2,770	19,768	20,278	629	12,800	—	5,554	350	35,611	2,59,684	1,38,183	1894-95 Hyderabad Assigned Districts.
Coorg - - 1886-87	—	660	659	—	—	—	—	—	841	19,850	9,283	1886-87 Coorg.
Coorg - - 1894-95	—	2,635	11,690	—	—	—	—	—	766	38,534	16,421	1894-95 Coorg.
TOTAL - - 1886-87	1,87,314	18,04,107	16,73,382	3,29,849	2,11,403	2,44,876	2,62,482	2,33,975	6,42,036	1,57,54,721	47,51,990	1886-87 TOTAL.
TOTAL - - 1894-95	2,51,089	22,09,649	37,11,822	3,94,083	4,75,009	6,45,904	5,83,434	4,83,723	11,08,957	2,37,91,286	76,31,382	1894-95 TOTAL.
Increase per cent. - -	34·0	22·5	121·8	19·5	124·7	163·8	122·3	106·7	72·7	51·0	60·6	Increase per cent.
Decrease per cent. -	—	—	—	—	—	—	—	—	—	—	—	Decrease per cent.

LOCAL BOARDS.

Extract from the Proceedings of the Government of India in the Home Department (Local Boards), under date Simla, the 20th August 1897.

RESOLUTION.

IN the Home Department Resolution No. 1,—Municipalities,—146–64, dated the 24th October 1896, the Governor-General in Council reviewed the progress made in the administration of municipal affairs since the legislation in 1884–85, and his Excellency in Council stated his intention of subsequently dealing with the subject of the administration of local boards. As some of the reports on local boards for 1895–96 had then been received, the Governor-General in Council determined to wait for the reports for that year from all local governments and administrations before recording the following observations regarding the work done under the control of the local boards in the rural areas in the different provinces. The report from the Government of Bombay for the Bombay Presidency was not received till March, and the observations of the local government till June, and this fact, which is due to the pressure of famine and plague in the province, accounts for the delay in the issue of these remarks.

2. Local self-government, such as now exists outside municipalities, originated in the establishment of semi-voluntary funds for local improvements, but it was not till 1871, when Lord Mayo's policy of decentralisation in the matter of finance conferred upon local governments the charge of certain departments of the public service specially connected with local requirements, that the need for supplementing the grants previously made for those services from imperial revenues and for providing means for carrying out works of local improvement became obligatory and pressing. It is true that the system of voluntary subscriptions to local funds had been already superseded in Madras by Madras Act, III. of 1866, and in Sind and the Bombay Presidency by Bombay Acts, VIII. of 1865 and III. of 1869, but steps were not taken in Bengal, the North-Western Provinces and Oudh, and the Punjab to provide legal means of supplementing the deficiencies of provincial revenues by local taxation until Lord Mayo's financial policy rendered them necessary.

Legislation.

3. The course of legislation in the different provinces may be briefly summarised as follows:—

Madras.

Madras.—Act III. of 1866 authorised the Government to levy a road-cess at 3¼ per cent. on the annual rent of land, but made no provision for a popular element in the administration of the cess funds. Madras Act, VI. of 1863, also enabled the inhabitants of towns and villages to raise funds for the establishment and endowment of schools. These two laws were eventually superseded by the Madras Local Funds Act, IV. of 1871, legalising the levy of certain cesses, of which the proceeds were to be devoted to local improvements and to education and the construction and maintenance of hospitals and dispensaries. The elective principle was not then recognised, and the boards were practically consultative bodies nominated by Government.

The whole system of the constitution of local boards, as well as of municipalities, throughout India was subjected to revision 10 years later, during Lord Ripon's Viceroyalty. The Resolution of the Government of India, No. 17—747—759, dated 18th May 1882, laid down the general principles as to the mode in which local boards should be constituted, but left a large margin of discretion to the local authorities of each province as to the manner in which the details should be worked out. The result, in the Madras Presidency, was the passing of Madras Act, V. of 1884, which, with the minor alterations introduced by Madras Act, III. of 1890, constitutes the law under which local boards are still administered in the Southern Presidency. The main features of the Madras law are—

(*a*) The village is taken as the unit of local administration, and groups of villages are constituted "unions" controlled by a panchayat, of whom the headman of each village is always one member, while the remainder are either all appointed by Government, or some appointed by Government and some elected by the taxpayers and inhabitants of the union.

(*b*) The taluk board, consisting of a president, the office of president being held *ex-officio* by the revenue officer in charge of the division of the district, and not less than 12 members, exercises authority, both financial and executive, over the village panchayat; and

(*c*) The district board, which exercises authority over the taluk boards, consists of the collector, as *ex-officio* president, and 24 members.

Power is vested in the Governor in Council to sanction the introduction of the system of appointment of the presidents of district and taluk boards and of a proportion of the members of the union panchayats, taluk and district boards, by election in localities where he thinks this can be done with advantage. It appears that up to the present time it has not been found desirable to extend the elective system either to taluk

boards or union panchayats. The representative principle has only been applied to district boards, the elected members of which must be chosen from among the members of the taluk boards, who themselves are nominated. Almost one-half the members of the district boards are elected in this manner. LOCAL BOARDS.

Bombay.—Act VIII. of 1865, which applied to Sind only, provided for the levy of a cess of 1 anna in the rupee on land and sayer (miscellaneous) revenue, and a tax on shops, and for the disbursement of the proceeds partly on public works and partly to local committees for expenditure on local improvements. The Act, III. of 1869, subsequently passed for the Bombay Presidency proper, provided for the creation of a local fund committee in each district, consisting of not less than eight members appointed by Government, of whom one-half were to be non-officials, with the collector of the district as president. The committee were empowered to levy a cess of 1 anna in the rupee of land revenue and received certain other sources of revenue, and were to provide for the requirements of the district in regard to the local public health, education, and convenience. By rules framed under the Act, taluka sub-committees were brought into existence and established as consultative bodies to the district committee. The Bombay Local Boards Act, I. of 1884, superseded both the Act of 1865 in Sind and the Act of 1869 in the Presidency proper. The main change effected by the Act, which is still the law in Bombay, is the express recognition of the elective principle. The sources of revenue and the objects of expenditure laid down in it are practically the same as in the earlier Acts. The chief points of principle on which it differs from the Madras Act are (*i*) that it takes the taluka, and not the village union, as its territorial unit; and (*ii*) that it recognises municipalities in the taluka concerned as being entitled to a voice in the board elections. There are taluka local boards in each district. At least half the members of the district and taluka local boards have to be elected. Bombay.

Bengal.—Committees existed prior to 1871 for the management of schools, dispensaries, and roads, but these were wholly due to official initiative. The reasons connected with the promotion of education which operated elsewhere in favour of compulsory local rating did not exist to the same extent in Bengal, where the cause of education had elicited voluntary effort to a large extent. The necessity for carrying out local improvements, stimulated by the financial policy initiated in 1871, brought about the passing of the Road Cess Act, X. of 1871, which represents the first step taken in the direction of local self-government in rural Bengal. Although the Act recognised the elective principle, this was not in practice given effect to, and it was not till after the whole system of local self-government had come under review in 1882 that the present system was established by Act III. of 1885 (B.C.). This Act distinguishes between the more and less advanced districts of the province. A district board has to be appointed in every district, and power is given to the local government to establish a local board in any sub-division or combination of sub-divisions. Local boards have been appointed in 32 out of the 47 districts in the province. In districts where no local boards are established, the whole of the members of the district board are appointed; where local boards have been constituted, they are entitled to elect a proportion of the members of the district board to be fixed from time to time by the local government, subject to the proviso that where local boards have been constituted throughout an entire district, at least half the members of the district board must be elected by them. Two-thirds of the members of each local board in the more advanced districts are elected: in other districts all members of the local boards are appointed. Village committees or unions are, as in Madras, recognised in the Bengal Act, but whereas these are created by the Madras Act, the Bengal Act only empowers the local government to create them, and it was not till 1895–96 that these unions were constituted in a few districts. Union committees are usually to consist of members elected from among the residents of the union, but the local government has power to require any union committee to consist wholly or in part of members appointed by the committee. Municipalities are not, as in Bombay, given any voice in the election of members of the boards. The amendment of the Act in Bengal is now under the consideration of the local legislative council. Bengal.

The condition of the North-Western Provinces and Oudh in regard to local self-government in rural areas was, till 1871, similar to that of Bengal. The Act, XVIII. of 1871, then passed did little beyond legalising the levy of certain cesses; and it was not till Act XIV. of 1883 became law that a material advance was made. This Act provides for the division of each district into sub-districts, and for the appointment of a local board in each sub-district, and of a district board in each district. The local boards consist partly of elected and partly of nominated members, but the latter may not exceed one-fourth of the number of each board. The district board consists either of all members of the local boards of the district, or, if the local government so directs, of a certain number of the elected members of the boards selected by their fellow-members, and of a certain number of the nominated members appointed by Government. A member of every district or local board is appointed to be chairman by election or appointment as the local government determines in each case. The law in the North-Western Provinces and Oudh follows that in Bombay in not recognising the village panchayat. Municipalities are excluded from the jurisdiction of the boards in the North-Western Provinces and Oudh. The North Western Provinces and Oudh.

LOCAL BOARDS.

Punjab.

The Punjab Local Rates Act, XX. of 1871, provided that not less than one-third of the members of the local committees appointed thereunder should be non-officials, but they were all to be nominated. Act V. of 1878, which repealed and re-enacted the Act of 1871 with certain modifications, relaxed the provisions regarding appointments to committees by enabling the Lieutenant-Governor to prescribe the manner in which the members should be appointed. Practically, however, no change of system was introduced until the passing of Act XX. of 1883, which is now the law in the Punjab. This Act requires a district board to be established in each district, but leaves the establishment of local boards subordinate to the district boards to the discretion of the local government. Local boards have been appointed in 19 out of the 31 districts of the province. To the local government is also left the decision, in each case, whether members shall all be nominated or all elected or partly nominated and partly elected. The method of election, and the regulation of the electoral franchise is also left to the local government to determine by rules. There is no provision in the law recognising village panchayats, and the authority of the district board does not extend to any portion of the district included in a municipality.

Central Provinces.

In the Central Provinces no district or rural local boards were constituted before 1883. The rates which there, as elsewhere, were levied for local purposes were administered entirely by the executive authority. Act I. of 1883 revised this arrangement, and placed matters on the same footing as in other provinces. The system prescribed by the Central Provinces Local Self-government Act differed, however, from the Acts dealing with the North-Western Provinces and the Punjab in that the Chief Commissioner is required to aggregate the several villages into circles, and the circles into groups. For each group a local board is established, and for each district a district board having authority over the local boards. The members of the local and district boards are partly representative and partly appointed, the latter class being limited to one-third of each board. Members of both are empowered to elect their own chairman. Municipalities are excluded from the jurisdiction of the boards. In the Central Provinces the scheme approximates to that described for Madras, except that the circles have no panchayat.

Assam.

In Assam local funds are administered under the Assam Local Rates Regulation of 1879, and it has been recognised that the province is not ripe for the elective system, which has, however, been tentatively introduced into a few places by executive orders.

Hyderabad Assigned Districts.

By the "Berar Rural Boards Law," 1885, district and taluk boards are established for each district, and its sub-divisions in the Hyderabad Assigned Districts. The taluk board consists partly of elected and partly of nominated members, the proportion of each being liable to variation under the orders of the resident, subject to the proviso that the nominated members shall not exceed one-half. The district board consists partly of elected members of the taluk board and partly of persons appointed by the Commissioner, the latter not to exceed one-half of the board.

There are no local boards in Burma or Coorg.

4. The Governor-General in Council has caused three statements to be prepared, similar to those prepared to illustrate the results of municipal administration in recent years. The first shows the constitution of local (including in this term both district and other local boards) boards in different provinces, while the other two exhibit the receipts and expenditure of the boards, and compare the results attained in 1895–96 with those of 1889–90. This year is the earliest for which adequate information was furnished; and the comparison cannot, therefore, extend over more than seven complete years.

It will be observed from the first of these statements that the system of local self-government has received its largest development in Madras, where there are 464 local boards with 5,086 members, of which no fewer than 361 are union panchayats with 3,324 members. There remain 103 taluk and district boards with 1,762 members.

In Bombay there are 224 district and local boards. In Bengal there are 38 district boards and 103 local boards, and steps have lately been taken to establish village unions in this province. In the North-Western Provinces and Oudh the district boards (48) are ordinarily an aggregate of the local boards established in each sub-division by the Act of 1883, but as compared with other provinces the district boards exercise very little authority. Measures have, however, recently been taken for the creation of a separate district fund for each district and for enforcing local responsiblity in the matter of local finance. In the Punjab there are 31 district boards and 69 local boards. In the Central Provinces district councils have been established in each district, and local boards in every tahsil.

Duties and functions of local boards.

5. The duties and functions of local boards extend to nearly all classes of local public requirements, and are much the same in all provinces. The general form which the legislation defining their duties and functions has taken is to impose upon them the duty and control of certain matters, subject to such exceptions and conditions as the local

government may make, and to the funds at their disposal being adequate for these purposes, and to provide for their undertaking other duties either at their own discretion, or at the direction of the local government, in some provinces with, and in others without, their own consent: The following abstract summarises the more important of these duties and functions under their main heads.

Communications.—The construction and maintenance of roads and other means of communication, and the planting of trees by the road side. The obligations of the local boards do not extend to Imperial lines of communication, but in some instances arrangements have been made to make these over to them for maintenance and repair. In all provinces this is a primary duty of the local boards.

Medical.—The construction, establishment, maintenance, management, and inspection of public dispensaries and hospitals. The Madras Act provides specially for the training and employment of medical practitioners, and the Bengal Act for the vesting by the local government of the control of hospitals and dispensaries in the district boards.

Sanitation, Drainage, and Water Supply.—The construction and maintenance of tanks, wells, and waterworks, the supply of pure water for drinking purposes, and generally the sanitation of the district.

Vaccination.—In Madras, Bombay, and Bengal the Local Boards Acts definitely impose the duty of providing for and supervising vaccination on the local boards, but in other provinces expenditure is incurred on this object under the general power of expenditure (referred to below) which is given to local boards.

Education.—The general development of primary education in the district, the establishment, management, maintenance and inspection of schools, the training of teachers and the establishment of scholarships. The Madras Act mentions specially the giving of grants-in-aid of schools. In Bengal, subject to any rules made by the local government, the district boards are vested with the maintenance and management of government primary and middle schools, English and vernacular, the control of the grant-in-aid allotment for middle schools under private management, and the control of the grant for primary education.

Famine Relief.—In all provinces except Assam the Acts empower local boards to undertake relief works in time of famine, and in some provinces to adopt other measures of relief. In the North-Western Provinces and Oudh, the Punjab and Hyderabad the local boards carry out such relief works as are made over to them by the Government. In Bengal the Commissioner fixes the limit of expenditure on famine relief.

Public Works.—The various Acts provide for the local boards constructing and maintaining markets, rest-houses and other public works. The Bengal Act empowers district boards to undertake on behalf of the Government the construction and maintenance of public buildings and other Government works; and the North-Western Provinces Act authorises local boards to maintain buildings and public works placed under their management by the local government. The North-Western Provinces and Punjab Acts provide for the maintenance of camping-grounds by district boards.

Pounds.—All the Acts except those for Madras, Bombay, and Assam impose upon local boards the duty of maintaining pounds and the exercise of such functions with respect to pounds as are entrusted to them.

General.—In all provinces local boards are empowered, apart from their special duties and functions, to provide generally for measures of public utility calculated to promote the safety, health, comfort or convenience of the people.

Apart from the functions and duties described above which are common to all or to a number of the provinces, local boards in some provinces are vested with special functions. Thus in Bombay local boards are specially empowered to establish model farms and take other measures to promote agricultural improvements. The Bengal, North-Western Provinces and Punjab Acts provide for the holding of agricultural fairs and exhibitions. The law in Berar contains a similar provision. In the North-Western Provinces and Oudh, and in the Central Provinces, local boards are required to manage such ferries as are made over to them under Act XVII. of 1878. In Berar also the management of public ferries is amongst the duties of the local boards. In the Punjab the local government may direct local boards to undertake the construction and repair of embankments, and the supply, storage and control of water for agricultural purposes, and also the preservation and reclamation of soil, and the drainage and reclamation of swamps. In Assam the maintenance of the district post is among the functions of the local boards. The Bengal Act empowers local boards to construct and maintain or guarantee local railways and tramways.

Revenue of local boards.

6. Statement II. exhibits the sources from which, in the different provinces, the revenue of the local boards is derived.

LOCAL BOARDS. The following table gives a summary of the different sources of income and the proportionate accounts realised from them respectively in the different provinces :—

1. Province.	2. Total Land Revenue.	3. Total Board's Income (including Loans and Advances).	4. Total Board's Income (excluding Loans and Advances).	5. Percentage of Column 4 to Column 2.	6. Percentage of Total Income, excluding Loans and Advances derived from								
					Rates.	Cattle-pound Receipts.	Educational Receipts.	Medical Receipts.	Miscellaneous Receipts.	Receipts from Civil Works.	Contributions. From Provincial to Local.	Contributions. From other Boards.	Other Items.
	Rs.	Rs.	Rs.										
Madras - -	5,59,21,410	89,54,875	85,62,000	15·3	62·3	—	2·6	·3	7·1	11·9	3·8	10·1	1·9
Bombay - -	3,98,48,040	50,80,437	50,16,742	12·5	57·3	3·8	3·1	·8	·3	12·2	21·1	·4	1·0
Bengal - - -	3,90,52,210	67,70,986	59,62,871	15·2	60·8	7·0	·9	·4	3·0	18·3	8·6	·0	1·0
North-Western Provinces and Oudh.	6,13,44,420	37,84,420	37,84,420	6·1	49·9	4·6	5·8	3·8	·9	·1	29·9	2·8	2·2
Punjab - -	2,44,01,150	31,16,433	30,58,137	12·5	75·6	1·9	2·8	·9	1·3	9·1	2·5	·1	5·8
Central Provinces -	76,73,320	9,08,744	8,13,869	10·6	49·3	21·3	1·1	1·0	3·2	9·6	14·0	·2	·3
Assam - - -	59,76,710	12,22,411	10,47,556	17·5	61·8	6·0	·0	—	1·5	10·6	20·1	—	—
Hyderabad Assigned Districts.	68,13,836	6,57,924	5,60,663	8·2	50·6	2·5	8·8	—	32·5	·5	3·4	—	1·7

The Government of India have no desire by this comparison to suggest to the local governments greater uniformity of practice. The circumstances and requirements of the several provinces must greatly vary. But the actual facts of income and expenditure have been brought together for the first time, and, so collated, will certainly be of interest to every local government concerned, as they all are in the development of an important policy, and may be of use by informing them of the experiences of their neighbours. The first remark suggested by this statement is that the differences in the sources from which the income of local boards is drawn are far less marked than in the case of municipal revenues. The reasons for this fact are apparent. Prior to 1882 municipal self-government had already developed on certain lines, widely divergent according to the differing circumstances of different provinces, and when the principles enunciated by the Government of India in that year were embodied in the laws of the different provinces in India they were incorporated with due regard to the conditions already developed in each, and did not necessitate a recasting of the whole system. Consequently there occurred no great change, at all events in the older provinces, in the practical administration of municipal funds or in the system under which they had for years previously been levied. With local boards the case was somewhat different. It was, in the main, the decentralising financial policy of 1871 which first necessitated recourse to further local taxation to supply the local wants of the different provinces. Prior to that year such local taxation as had been introduced had been legalised only in the Presidencies of Madras and Bombay. In 1871 certain cesses on land were legalised in other provinces also ; but previously to 1883–84 the form which local self-government in rural areas should take had nowhere been established in such a way as to preclude conformity with the principles then laid down which were of general application. Moreover, the sources of revenue which are open to local boards are most circumscribed than in the case of municipalities, while the rural wants in different provinces are less diverse than the requirements of urban areas. In the case of local boards the largest item of revenue is the cess levied in one form or another on land ; and the remainder of the income depends mainly on provincial grants and on such receipts as have been made over to local bodies on the condition that equivalent expenditure is incurred on specified objects.

7. Although, in these circumstances, a detailed examination of the differences in the sources of revenue credited to local boards in the different provinces cannot be expected to display the contrasts noticed when dealing with municipal administration, there are some features in the statement attached to this resolution which must attract attention. In the first place, the fact that the total income has, in seven years, only increased from Rs. 2,67,83,682 to Rs. 2,98,38,306, the incidence of taxation remaining practically the same, sufficiently indicates the unexpansive nature of the sources of revenue open to local boards. The difference in the manner in which the items composing the total were classified seven years ago interferes somewhat with a detailed comparison of them, but it will be observed that the main source of local board income namely provincial rates (column 3 of the Statement), shows an increase in almost identical proportions with the total increase.

Provincial rates. In Madras the land cess is a rate which may be realised up to the maximum of two annas per rupee of the assessment. The actual rate at which it is collected is, except in three districts, one anna in the rupee of assessment. The receipts have increased in seven years from Rs. 45,25,480 to Rs. 49,71,193. In Bombay the rate has risen from

Rs. 26,65,965 to Rs. 28,73,769. In Bengal the provincial rate is the balance of the road cess after deducting the cost of collection and revaluations. It has risen from Rs. 34,32,574 to Rs. 36,27,156. In the Punjab local boards generally receive four-fifths of the local rate. The amount allotted to them has increased from Rs. 21,03,778 in 1889–90 to Rs. 23,11,133 in 1895–96. In the Central Provinces the rate has, owing to resettlements, risen from Rs. 2,78,995 to Rs. 4,01,582 during the same period, and in Assam from Rs. 5,32,098 to Rs. 6,47,031. In the Hyderabad Assigned Districts, where the first report on the working of the boards was furnished in 1890–91, the amount credited to the local boards in 1895–96 was Rs. 2,83,497. The only province in which the amount of the provincial rate assigned to the local boards has declined between 1889–90 and 1895–96 is the North-Western Provinces and Oudh, in which the amount was in the former year Rs. 20,66,879, and in the latter Rs. 18,90,528. The amount allotted to the boards in the North-Western Provinces and Oudh is the total yield in each district, less certain sums reserved for the maintenance of the rural police in the North-Western Provinces and the district post and traffic registration in the united provinces, and less also sums deducted on account of inspection of schools, normal schools, Public Works Department direction and accounts, the Commissioner's local fund establishment, and district sanitation. It will be as well to mention here that up to a very late period the North-Western Provinces and Oudh was the only province in India in which the ancient system of managing local finance by budget allotments from provincial revenue still existed. The district boards had no financial responsibility or independence, all local expenditure being in effect provincial, and the boards having no real budgets. Under a scheme which has been recently sanctioned by his Honour the Lieutenant-Governor a separate fund has been formed for each district as contemplated by section 38 of Act XIV. of 1883, and local rates and other local receipts are credited to that fund, which will be supplemented by a contribution from provincial revenues in deficit districts. The boards will be allowed to carry on their balances from year to year. This scheme will effect a very important and far-reaching improvement in the administration of local revenues.

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Column 4 of the Statement shows that Madras is the only province in which cattle-pound receipts have not been made over to local boards. There has been an increase under this head everywhere except in the North-Western Provinces and Oudh, where the system of direct management appears to have been substituted for the farming system in 1890–91, since when the collections have fluctuated with a tendency to decrease.

Cattlepound receipts.

There has been a large increase in Madras and the North-Western Provinces and Oudh in the income shown under Education (being the proceeds of school-fees, contributions, &c.), in column 5 of Statement II. In Madras the school-fees have risen from Rs. 1,41,294 to Rs. 2,11,579 (training schools, Rs. 196, high schools, Rs. 31,211, middle schools, Rs. 72,289, and primary schools, Rs. 1,07,883). In the North-Western Provinces and Oudh the fees have risen from Rs. 1,34,000 to Rs. 1,79,548, but they are realised in a different manner, since Rs. 1,02,587 of the total is received in the form of fees at high schools, while Rs. 46,778 comes from middle schools, and only Rs. 30,183 from primary schools. The receipts under the head of Education show a decline in Bombay from Rs. 3,48,100 to Rs. 1,59,484, which appears to be accounted for by the removal from this head of contributions from provincial funds which are now shown under the head Contributions. In Bombay school-fees have risen from Rs. 1,29,474 to Rs. 1,42,460 (of which Rs. 1,41,526 came from primary schools). In Bengal the income from school-fees is very low (Rs. 29,733), against Rs. 20,892 in 1889-90. It is almost entirely realised at secondary schools. In the Punjab fees have risen from Rs. 44,979 to Rs. 75,921 (Rs. 41,071 of which were recovered from middle and Rs. 34,850 from primary schools). The receipts from fees are nominal in the Central Provinces and Assam; in the Hyderabad Assigned Districts they amounted in 1895–96 to Rs. 40,449.

Educational receipts.

The receipts under the heading "Medical" in the North-Western Provinces and Oudh amount to a much larger sum than elsewhere, but of the total of Rs. 1,45,111, Rs. 1,05,695 came from endowments and contributions, and hospital and dispensary receipts were actually highest (Rs. 28,337) in Bombay.

Medical receipts

The receipts under the head "Miscellaneous" (column 7 of the Statement) are very much higher in Madras and Bengal than elsewhere. Among the Rs. 6,05,112 credited to this head in Madras are receipts from rents of choultries (resthouses) (Rs. 2,48,679), markets (Rs. 1,56,393), and avenues (Rs. 93,422), with which 17,036 miles of road under the local boards in Madras are provided. In Bengal the miscellaneous income has increased from Rs. 1,39,874 in 1889-90 to Rs. 1,81,023, owing to the inclusion under that head of items such as sale proceeds of trees, recoveries of the cost of collecting road cess arrears, &c., previously shown under the head "Land Revenue."

Miscellaneous receipts.

8. The sum of Rs. 10,10,136 recovered in Madras under the head of Works in charge of officers of district and local boards includes Rs. 7,64,485 recovered from tolls on roads. In other provinces, except the North-Western Provinces and Oudh, where the tolls from ferries are not made over to the local boards, the main item of income under this head comes from ferries. These receipts had risen between 1889–90 and 1895-96 from Rs. 2,31,589 to Rs. 4,94,748 in Bombay, from Rs. 2,84,164 to Rs. 4,18,814 in

Receipts from civil works.

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Bengal, from Rs. 1,44,383 to Rs. 1,56,969 in the Punjab, and from Rs. 50,197 to Rs. 62,605 in the Central Provinces, and fallen from Rs. 1,28,022 to Rs. 1,09,481 in Assam. The amount recovered by local boards in Berar from ferries under their management is nominal.

Contributions.

The sum of Rs. 10,89,183 shown under the head of Receipts from Civil Works in charge of officers of district and local boards in Bengal includes a contribution from Government for special works of Rs. 6,63,209. A further contribution of Rs. 5,10,907 is shown under the head of "Contributions from Provincial to Local Funds" (column 12). In Madras the contribution has fallen from Rs. 3,93,033 in 1889–90 to Rs. 3,25,832 in 1895-56. In Bombay it is shown as having risen from Rs. 4,26,483 to Rs. 10,60,592, which sum includes the specific grants made by Government to primary education, village sanitation, and water supply, and the fixed contribution in lieu of the one anna cess or excise revenue. The increase which, as already noticed, is accompanied by a large decrease under the heading shown in column 5, is to some extent due to a change in the classification of the provincial grants in the accounts. In the Punjab (Rs. 75,116), the Central Provinces (Rs. 1,14,101), and the Hyderabad Assigned Districts (Rs. 18,824), the contributions from provincial funds were not large. In Assam they fell from Rs. 4,95,087 to Rs. 2,10,492. The contributions were highest in the North-Western Provinces and Oudh, though here again they had fallen from Rs. 13,25,027 in 1889–90 to Rs. 11,29,911 ; but in those provinces the boards have hitherto had no financial status, and the contribution from Government has represented the sum required to equalise their receipts and expenditure.

Expenditure of local boards.

9. Statement III. exhibits the expenditure of the local boards.

The following table shows the proportion of expenditure in 1895–96 under each head in the different provinces :—

Province.	Education.	Medical.	Civil Works.	Refunds and Drawbacks.	Administration (General Establishments of Local Funds).	Cattle-pound Charges.	Miscellaneous.	Famine Relief.	Contributions.	Other Items.
Madras - - -	13·6	15·4	48·7	·2	4·3	—	3·6	—	13·5	·7
Bombay - - -	31·1	5·2	55·6	—	2·7	—	2·4	—	1·4	1·6
Bengal - - -	19·3	3·0	70·4	·0	4·7	·3	1·2	·0	·1	1·0
North-Western Provinces and Oudh.	34·4	14·0	49·1	—	1·5	—	·6	—	—	·4
Punjab - - -	20·9	11·2	35·4	1·9	4·0	·7	1·2	—	18·2	6·5
Central Provinces -	30·7	8·2	44·6	·4	4·3	7·2	1·4	·1	1·7	1·4
Assam - - -	17·8	6·3	68·8	4·5	·2	—	2·3	—	—	·1
Hyderabad Assigned Districts.	30·4	1·2	45·7	2·9	6·4	—	9·2	—	·1	4·1

Education.

The first item requiring notice is Education (column 10 of Statement III.). Expenditure under this head has increased in every province, and the aggregate expenditure amounted in 1895-96 to Rs. 63,44,723, as compared with Rs. 51,01,466 in 1889–90. The expenditure is proportionately highest in Bombay, the North-Western Provinces and Oudh, and the Central Provinces. Out of Rs. 15,59,992 expended in Bombay, Rs. 13,14,742 (compared with Rs. 10,86,332 in 1889–90) were spent on primary schools and Rs. 1,20,043 on grants-in-aid. Rs. 14,858 were devoted to training and special schools, but the boards expended nothing on high schools and a small sum only (Rs. 2,770) on middle schools. In the North-Western Provinces and Oudh, on the other hand, where the aggregate expenditure was Rs. 12,63,965, it was distributed thus : inspection (Rs. 1,19,861), high schools (Rs. 2,40,083), middle schools (Rs. 1,79,378), primary schools (Rs. 5,47,680), and grants-in-aid (Rs. 1,27,636). The local boards have in these provinces recently been requested to devote more money towards primary vernacular education, and funds have been placed at their disposal for this purpose. In the Central Provinces, where the total expenditure under this head was Rs. 2,81,058, Rs. 52,714 were expended on middle schools, Rs. 1,28,698 on primary schools, and Rs. 87,409 on grants-in-aid.

In Madras (total expenditure Rs. 11,67,168) more (Rs. 52,179) was spent on training schools (of which there are five under the boards) and special schools in 1895–96 than elsewhere, though the sum so expended was less than it had been (Rs. 88,506) in 1889–90. The expenditure on high schools has during the same period risen from Rs. 39,223 to Rs. 42,935 ; that on middle schools from Rs. 94,780 to Rs. 1,41,473 ; that on primary schools from Rs. 2,86,966 to Rs. 5,86,167 ; and that on grants-in-aid from Rs. 2,01,134 to Rs. 2,32,458. In Bengal (total expenditure Rs. 12,26,642) the expenditure on middle schools has remained nearly constant ; a very small sum (Rs. 1,619) is expended on high schools, and the direct expenditure on primary schools has fallen from Rs. 4,06,214 to Rs. 2,72,333. This fall, has, however, been accompanied by a rise in the grants-in-aid from Rs. 2,69,117 to Rs. 5,07,373. Technical schools are maintained in nine districts,

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and the expenditure on training and special schools, which was Rs. 2,130 in 1889-90, had risen to Rs. 21,399 in 1895–96. In the latter year 15 district boards granted scholarships to female medical students; five others offered scholarships, but no candidates came forward.

In the Punjab, expenditure on education has risen from Rs. 5,08,342 in 1889–90 to Rs. 6,46,490 in 1895–96; Rs. 1,18,608 were in the latter year expended on middle schools, Rs. 3,44,958 on primary schools, Rs. 1,03,015 on grants-in-aid, and Rs. 49,075 on scholarships. The expenditure on high schools was nominal. In Assam, where no fees are realised, the expenditure has risen from Rs. 1,52,917 to Rs. 1,99,407; of this sum Rs. 4,433 were expended on training and special schools, Rs. 26,548 on middle schools, Rs. 1,49,491 on primary schools, and Rs. 11,162 on scholarships. In the Hyderabad Assigned Districts Rs. 1,94,799 of the Rs. 2,00,570 expended were spent on primary schools.

The following instructive table shows the percentage of the whole expenditure on education which is applied directly to high, secondary, and primary education respectively :—

	High Schools.	Middle Schools.	Primary Schools.
Madras	3·7	12·1	50·2
Bombay	—	·2	84·3
Bengal	0·1	6·3	22·2
North-Western Provinces and Oudh	19·0	14·2	43·3
Punjab	—	18·3	53·4
Central Provinces	—	18·8	45·8
Assam	—	13·3	75·0
Hyderabad	—	—	97·1

Medical expenditure.

10. Disbursements under "Medical" (column 11 of the Statement) include expenditure on hospitals and dispensaries, sanitation and vaccination, and on the general medical establishment in the pay of local boards. Expenditure under this head in Madras amounted in 1895–96 to Rs. 13,25,433, or nearly half the total expenditure throughout the different provinces (Rs. 27,96,853). Local boards in the Southern Presidency are entrusted almost entirely with the working of vaccination and largely with the maintenance of the local hospitals and dispensaries. There were 369 such institutions (131 hospitals and 238 dispensaries) under the control of the boards of the Madras Presidency as compared with 294 in 1889–90. The expenditure on these institutions in 1895–96 was Rs. 5,97,602, and the number of patients had risen from 1,538,797 in 1889-90 to 2,486,530 in 1895–96. Twelve nurses at Cuddapah attended 783 labour cases, and 195 midwives employed by local boards attended 14,111 such cases. The charges on account of vaccination establishment, &c., were Rs. 2,01,570 in 1895-86, in which year the number of vaccination operations, including those performed at hospitals and dispensaries were 1,038,404, compared with 741,605 in 1889–90. The expenditure on sanitation was Rs. 4,98,029. The statistics regarding the medical work controlled by the local boards in the Madras Presidency are very satisfactory. In Bombay the expenditure under Medical has risen from Rs. 1,70,637 in 1889–90 to Rs. 2,61,743 in 1895–96. The latter figure includes Rs. 1,42,336 expended on hospitals and dispensaries, and Rs. 1,08,907 on vaccination establishment and charges. The expenditure under the head "Medical" was lower in Bengal than in any of the larger provinces, though probably there is no province more in need of hospitals and dispensaries. The total expenditure has indeed increased from Rs. 42,546 in 1889-90 (when only 26 hospitals and dispensaries were under the board's management) to Rs. 1,92,810 in 1895–96; but there is still room for much improvement. The latter sum was mainly expended on hospitals and dispensaries (Rs. 1,57,305) and sanitation charges (Rs. 18,409). The Bill to amend the Bengal Local Self-Government Act of 1885 should, when passed into law, stimulate expenditure on vaccination. Twenty-four dispensaries were either established or came for the first time under the board's control in 1895-96. In the North-Western Provinces and Oudh the medical expenditure was in 1895–96 Rs. 5,14,206, compared with Rs. 4,47,905 in 1889–90. The expenditure in 1895–96 included Rs. 1,24,415 on the general medical establishment, Rs. 2,93,209 on hospitals and dispensaries, Rs. 10,339 on sanitation charges, and Rs. 86,023 on vaccination establishments and charges. In the Punjab the expenditure in 1889–90 was Rs. 2,91,394, and in 1895–96 Rs. 3,48,113. Of the latter figure Rs. 2,66,066 were expended on hospitals and dispensaries, Rs. 65,568 on vaccination and sanitation, and Rs. 13,792 on leper asylums. In the Central Provinces the expenditure in 1895–96 on hospitals and dispensaries was Rs. 28,270, and on vaccination establishments and charges Rs. 35,938; the corresponding figures in Assam were Rs. 57,169 and Rs. 13,587. Of the Rs. 8,073 expended under the head Medical in that year in the Hyderabad Assigned Districts, Rs. 6,648 were spent in the form of grants to dispensaries.

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Sanitation.

11. It is not easy to compare the expenditure on sanitary works in the different provinces, since in some cases it is shown under the head Medical, and in others under Civil Works. It has been noticed above that Rs. 4,98,029 were expended in 1895-96 on this object in Madras. This sum was distributed among (1) the improvement of water supply (Rs. 93,703); (2) the improvement of village sites (Rs. 39,665); (3) conservancy establishments (Rs. 3,21,429); (4) arrangements at fairs and festivals (Rs. 18,885); and (5) other sanitary outlay (Rs. 24,347). In Bombay the expenditure seems to have been Rs. 4,34,082; devoted to the improvement of water supply (Rs. 4,24,886); improvement of village sites (Rs. 7,569); the conservancy of towns and villages (Rs. 1,627). In Bengal the expenditure was Rs. 99,640, which was expended on the improvement of the water supply (Rs. 65,894); the improvement of village sites (Rs. 8,247); conservancy of towns and villages (Rs. 598); sanitation at fairs (Rs. 8,830); and other sanitary expenditure (Rs. 16,071). No information as to any expenditure under this head is given in the report for the North-Western Provinces and Oudh. It is intended to employ a sanitation staff in districts to which the Village Sanitation Act has been applied for its enforcement in selected towns and villages under the immediate supervision of the civil surgeon and the general control of the Sanitary Board. In the Punjab Rs. 25,691 were expended on the improvement of the water supply; Rs. 983 on the improvement of village sites; Rs. 6,075 on the conservancy of towns and villages; Rs. 2,743 on sanitary arrangements at fairs; and Rs. 68,288 on other works. In the Central Provinces Rs. 1,05,227 were expended on the improvement of the water supply; Rs. 2,689 in improving the sites of villages; and Rs. 4,748 on the conservancy of towns and villages. In Assam the expenditure under the head sanitation was Rs. 71,959, that on water supply having been Rs. 39,322, and that on the improvement of village sites Rs. 12,881. The expenditure in the Hyderabad Assigned Districts aggregated Rs. 3,05,352, of which Rs. 39,422 were spent on the water supply, Rs. 67,114 on the improvement of the sites of villages, and Rs. 37,379 on the conservancy of towns and villages. Of the rest, Rs. 2,117 were spent on sanitary arrangements at fairs and festivals, and Rs. 1,59,320 on other objects calculated to promote the safety, health, comfort, &c., of the rural population.

Public Works.

12. The expenditure by the local boards on civil works (including in some instances some of the works for sanitary improvement mentioned in the last paragraph) aggregated in 1895–96 Rs. 1,58,29,536, compared with Rs. 1,41,05,028 in 1889–90. The expenditure is shown in Statement III. as distributed between works in charge of officers of district and local boards and works in charge of the officers of the Public Works Department. But the figures showing this distribution are somewhat misleading, since they accord with the figures of the Account Department, and the rules of the Civil Account Code require that works which cost more than a certain sum must be shown as in charge of public works officers, whatever the agency is by which they are executed. It would be convenient if in future information were given in the body of all the reports to show exactly how much was expended on public works carried out (*a*) through the agency of the Public Works Department, and (*b*) through the agency of establishments entertained by the boards. Some local governments have furnished this information, while others have not.

In Madras the expenditure on civil works amounted to Rs. 41,88,784, compared with Rs. 38,72,528 in 1889–90. The local fund engineering establishments cost, including contingencies, Rs. 5,71,992. The money actually expended on works amounted to Rs. 35,33,013 (Rs. 33,70,256 having been expended by engineering establishments under the local boards, Rs. 1,32,075 by the Revenue Department, and Rs. 30,682 by the Public Works Department). One hundred and twenty-five miles of new roads were made, and 20,832 miles repaired, and the total outlay on communications, bridges, culverts, &c., was Rs. 30,66,837.

In Bombay the total expenditure was Rs. 27,91,337, compared with Rs. 20,40,796 in 1889–90. Included in the expenditure exhibited on works under the charge of the officers of the district and local boards were the sums of Rs. 3,18,647 expended on original works, Rs. 5,91,340 expended on repairs, and Rs. 3,13,227 expended on the water supply. The expenditure shown as having been incurred on works under the control of the officers of the Public Works Department included Rs. 5,68,733 on original works, and Rs. 6,35,093 on repairs.

The expenditure in Bengal in 1895–96 was Rs. 44,71,881, compared with Rs. 38,42,381 in 1889–90; of the former sum, Rs. 6,26,847 were expended on establishment and contingencies, Rs. 14,09,268 on original works, Rs. 23,11,022 on repairs. The expenditure on village roads in 1895–96 was Rs. 3,61,718, compared with Rs. 3,68,952 in 1889–90.

In the North-Western Provinces and Oudh the total expenditure had fallen from Rs. 21,44,931 in 1889–90 to Rs. 18,01,539 in 1895–96. Apparently this change is due to the fact that no sum corresponding to the charge for establishments and tools and plant in 1889–90 (Rs. 4,06,900) is shown in the accounts for 1895–96. The sum shown as expended on works under the officers of the Public Works Department was Rs. 12,68,657 (Rs. 4,02,406 on original works, and Rs. 8,47,078 on repairs). Rs. 5,32,882 are exhibited as expended on works in charge of the boards; of this sum Rs. 3,67,741 were spent on repairs, and Rs. 61,204 on original works.

The expenditure in the Punjab has risen since 1889–90 from Rs. 9,80,793 to Rs. 10,93,862, of which Rs. 1,19,309 are shown as expended on works in charge of

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the boards. The amount shown as expended on works executed by Public Works Department officers was Rs. 9,74,553, viz., Rs. 2,87,925 on original works, Rs. 5,73,935 on repairs, and Rs. 1,12,693 on establishment, and tools and plant. In the Central Provinces the expenditure in 1889–90 was Rs. 3,45,582, and in 1895–96, Rs. 4,08,479. The amount shown as expended under the orders of the boards was Rs. 2,20,951 (Rs. 17,961 on original works), and that shown as expended by officers of the Public Works Department, Rs. 1,87,528. In Assam the expenditure was Rs. 7,71,805, compared with Rs. 8,78,017 in 1889–90. All this sum but Rs. 17,717 is shown as expended by officers of the Public Works Department. The amount expended on repairs was Rs. 3,11,395, and on original works Rs. 3,35,654. The amount expended on new communications was Rs. 3,12,639 in 1895–96, compared with Rs. 4,42,783 in 1889–90. In the Hyderabad Assigned Districts the whole expenditure (Rs. 3,01,850) is shown as having been expended entirely by officers of the Public Works Department, of which Rs. 1,28,298 were spent on original works, and Rs. 1,43,651 on repairs.

One of the most important and most difficult of the questions connected with local self-government is the agency by which their public works is to be carried out. There is necessarily much diversity of practice. A rich district in Bengal can maintain a supervising staff of its own. A poor district in the Central Provinces is compelled to trust to the help of the Imperial establishment of Public Works. And in the same province there have been considerable fluctuations as to the machinery by which the local works are executed. The Government of India will be obliged if each local government in its next annual report on the subject will add a chapter giving a summary of the present arrangements for the execution and supervision of the works carried out by the district boards, and of the experiences under which the existing system has been developed.

13. In paragraph 2 above allusion is made to the village unions as constituting a main feature of the Madras local self-government law, and the constitution and position of the managing panchayats are briefly described. Madras is the only province in which the system of village unions has been extensively introduced, and there it has developed steadily. The number of village unions in 1889–90 was 248, and in 1895–96, 361. The union panchayats are authorised under the Madras Local Boards Act of 1894 to assess and collect a tax on houses at rates varying from Rs. 5 to 4 annas per annum. An appeal lies to the taluk board. The proceeds of this house-tax and contributions from taluk boards form the main items of the union resources. The total income of the village unions in 1895–96 was Rs. 5,93,095, of which house-tax comprised Rs. 3,63,145, and contributions from taluk boards Rs. 1,62,001. In 1889–90 the total income was Rs. 3,33,706, and of this the house-tax yielded Rs. 1,52,874, and the contributions from taluk boards amounted to Rs. 1,59,591. The main duties of the village panchayats are the cleansing of the village streets, drains, tanks, wells, and other public places, and generally the preservation of the public health. In the larger unions the duties of the panchayats extend to the construction and repair of village streets, drains, tanks, and wells. In 1895–96 the total expenditure of the unions amounted to Rs. 5,84,053, as against Rs. 3,20,836 in 1889–90. The following statement compares the details of the expenditure in these two years :—

—	Office Establishment.	Village Sanitation.	Public Works.	Other Items.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.
1895–96 - - -	71,268	3,41,329	86,056	85,400	5,84,053
1889–90 - - -	39,879	2,06,971	41,856	32,130	3,20,836

In Bengal there are now 48 unions, chiefly in the Burdwan and Presidency Divisions. The income of the union committee consists of (i) net pound receipts, (ii) a consolidated grant from the district boards for village roads, sanitation, and water supply, and (iii) funds raised under section 118 of the Act. The average income in 1895–96 was Rs. 558. Most of them have hardly been a year in existence, and complete statistics of their working are not yet available.

General results.

14. The statistics given above show that much useful work is done by local boards, and that substantial progress has been made by them in the work of administration in recent years. The working of the district boards, taluk boards, and union panchayats in the Madras Presidency is regarded by the Madras Government as on the whole satisfactory. With this opinion the Government of India concur, and the working of the system in the Madras Presidency appears to the Governor-General in Council to have progressed more than elsewhere in India. In 1892–93 the Bombay Government reported that, notwithstanding the extensive powers granted to the local boards, the measures taken in pursuance of the policy adopted in 1882 had not, so far as it aimed at creating an interest in local self-government, been altogether a success. In 1893–94 they remarked that though in some respects there is scope for improvement in local board administration, the extent of the material improvement which is being steadily effected, year after year, in rural tracts by the expenditure under the control of 224 local boards of an income of nearly a crore of rupees must be recognised and regarded

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with satisfaction. The Bombay Government expressed their opinion that the working of the boards in 1894-95 had been marked by steady and healthy progress, and it appears to the Government of India that the record of their work may be regarded as satisfactory.

At the close of his tenure of the office of Lieutenant-Governor of Bengal, Sir Charles Elliott made the following remarks regarding the work of the district and local boards in Bengal:—

During the last five years Sir Charles Elliott has watched with interest the working of district and local boards, and has formed a distinct opinion as to their respective merits as departments of the public service. In district boards the Government possesses a valuable agency for assisting the executive of the districts with information as to local wants and conditions, and advice in the manifold details of internal executive administration. The strength of these boards resides in the fact that they represent more or less adequately the chief interests of the district, and that the questions which come before them are important enough to arouse their interest, while at the same time they are relieved by the executive of the duty of controlling and supervising details. The chief defect of the district boards consists in the large area of their jurisdiction and in the difficulty of appointing a body of men who will effectually represent all parts of the district and all interests in it. The division of functions between the boards and their chairmen is one well adapted to the work that has to be done. The representative body supplies the information and experience on which to base the decision as to what should be done; the officer who wields the executive power in the district gives effect to those decisions. With local boards it is different. It has hitherto been found impossible to extend their functions so as to give them work of sufficient importance to enlist their interest keenly. Nor, at any rate in most cases, have they at their head an officer of experience in business with a sufficient staff at his disposal. Thus their energies flag, and the work that is given them to do is too often indifferently looked after. The policy by which these defects can be cured seems to be one involving larger decentralisation, the devolution of some of the work now retained by the district boards, the appointment of an official chairman, and the abolition of the Sadar local board, which is an evident superfluity. It is possible also that the extension of union committees and the promotion of village sanitation may stimulate the energies of local boards and provide for them congenial work in supervising and guiding the action of the committees; or, again, the latter, being more closely in touch with local interests, may in time absorb the functions of local boards and render these bodies superfluous. Either result, however, must be the work of time, and it would be premature to venture on any forecast of what will happen within the next few years.

This opinion of Sir Charles Elliott is shared by Sir Alexander Mackenzie.

In the North-Western Provinces and Oudh the action of the boards has hitherto been hampered by the fact that they have had no financial responsibility. In the Punjab, Sir Dennis Fitzpatrick regarded the working of the district boards as on the whole satisfactory, but considered that the local boards have not hitherto been successful, in some measure owing to the fact that the district boards contain representatives of all tahsils, and do not find that there is much business to make over to local boards on the ground that they cannot themselves manage it. In the Central Provinces, Assam, and the Hyderabad Assigned Districts, the working of the boards seems to have been fairly satisfactory.

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CONSTITUTION of DISTRICT and LOCAL BOARDS in BRITISH INDIA during the Official Years 1889-90 and 1895-96.

NAME OF PROVINCE.		Number of Districts and Local Boards.	Population within the Area.	Number of Members.								Number of Meetings held.	Average Attendance at each Meeting.			NAME OF PROVINCE.
				Ex-officio.	Nominated.	Elected.	Total.	Officials.	Non-Officials.	Europeans and Eurasians.	Natives.		Officials.	Non-Officials.	Total.	
1.		2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	
Madras	1889-90	355	28,278,109	684	3,089	240	4,013	1,406	2,607	235	3,778	4,183	2·6	6	8·6	1889-90 Madras.
	1895-96	464	32,205,688	871	3,916	299	5,086	1,641	3,445	254	4,832	6,205	3	6·7	9·7	1895-96
Bombay	1889-90	221	15,268,425	40	1,847	1,543	3,430	791	2,637	217	3,211	1,339	1·9	5·2	7·1	1889-90 Bombay.
	1895-96	224	17,405,570	40	1,883	1,574	3,497	813	2,684	207	3,290	1,348	2	5·9	7·9	1895-96
Bengal	1889-90	144	57,185,307	205	1,023	772	2,000	406	1,594	283	1,717	1,236	1·9	5·4	7·3	1889-90 Bengal.
	1895-96	141	61,436,181	216	1,048	761	2,025	394	1,631	312	1,713	1,753	2·1	5·4	7·5	1895-96
North-Western Provinces and Oudh	1889-90	49	41,320,020	26	331	1,283	1,640	302	1,338	71	1,569	540	3	7·9	10·9	1889-90 North-Western Provinces and Oudh.
	1895-96	48	46,530,916	293	70	1,264	1,627	298	1,329	79	1,548	606	3·1	9·2	12·3	1895-96
Punjab	1889-90	114	16,657,041	260	1,137	1,416	2,813	318	2,495	92	2,721	511	1·6	9·6	11·2	1889-90 Punjab.
	1895-96	100	18,542,273	293	1,047	1,212	2,552	341	2,211	90	2,462	632	2·3	10·9	13·2	1895-96
Central Provinces	1889-90	68	7,711,994	—	246	893	1,139	110	1,029	15	1,124	506	1·1	5·6	6·7	1889-90 Central Provinces.
	1895-96	70	9,316,554	13	280	885	1,178	130	1,048	28	1,150	490	1·3	5·6	6·9	1895-96
Assam	1889-90	19	4,914,292	57	164	157	378	63	315	138	240	100	1·9	7·2	9·1	1889-90 Assam.
	1895-96	19	4,968,185	52	179	140	371	60	311	139	232	102	1·8	7·7	9·5	1895-96
TOTAL	1889 90	970	171,335,188	1,272	7,837	6,304	15,413	3,396	12,015	1,051	14,360	8,415	2	6·7	8·7	1889-90 TOTAL.
	1895-96	1,066	190,405,367	1,778	8,423	6,135	16,336	3,677	12,659	1,109	15,227	11,136	2·2	7·4	9·6	1895-96
Hyderabad Assigned Districts	1889-90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1889-90 Hyderabad Assigned Districts.
	1895-96	27	2,693,533	—	163	368	531	51	480	7	524	242	166			1895-96

No. II.

LOCAL BOARDS.

INCOME (in RUPEES) of DISTRICT and LOCAL BOARDS in BRITISH INDIA during the Official Years 1889-90 and 1895-96.

NAME OF PROVINCE.		Closing Balance of previous Year.	VI.—Provincial Rates (including Local Rate, Patwari Cess, Village Service Fund, &c.).	XVII.—Police (Receipts under the Cattle Trespass Act).	XIX.—Education (including School Fees, Contributions, &c.).	XX.—Medical (including Hospital and Dispensary Receipts, Income from Endowments, &c.).	XXV.—Miscellaneous.	Other Items.	XXXII.—Civil Works.			Contributions.			Debt (Loans, Deposits, and Advances).	Total Income, excluding Opening Balance.	Total Income, including Opening Balance.	Incidence of Taxation in Rs., As., and Pies per Head of Population.	Incidence of Income in Rs., As., and Pies (excluding Opening Balance) per Head of Population.
									In charge of Officers of District and Local Boards.	In charge of Public Works Officers.	Total.	From Provincial to Local.	From other Boards.	Total.					
1.		2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
Madras	1889-90	21,48,677	46,78,354	—	1,62,394	22,988	4,61,743	1,65,297	8,31,037	8,917	8,39,954	3,93,033	8,31,779	12,24,812	98,409	76,53,951	98,02,628	0 2 7	0 4 3
	1895-96	20,69,864	53,34,338	—	2,27,111	22,712	6,05,112	1,61,386	10,10,136	8,712	10,18,848	3,25,832	8,66,661	11,92,493	3,92,875	89,54,875	1,10,24,739	0 2 8	0 4 5
Bombay	1889-90	24,88,438	26,65,965	1,38,014	3,48,100	7,113	17,418	1,12,934	3,59,478	14,022	3,73,500	4,26,483	83,897	5,10,380	20,156	41,90,458	66,78,896	0 2 9	0 4 4
	1895-96	25,38,829	28,73,769	1,89,675	1,59,484	38,763	13,148	50,000	6,12,796	41	6,12,837	10,60,592	18,474	10,79,066	63,695	50,80,437	76,19,266	0 2 8	0 4 8
Bengal	1889-90	18,28,843	34,32,574	3,94,594	30,561	7,625	1,39,874	18,202	3,28,314	—	3,28,314	10,98,148	4,250	11,02,398	8,19,261	62,73,403	81,02,246	0 0 11	0 1 9
	1895-96	17,32,181	36,27,156	4,15,947	53,836	24,489	1,81,023	58,045	10,89,183	—	10,89,183	5,10,907	2,285	5,13,192	8,08,115	67,70,986	85,03,167	0 0 11	0 1 9
North-Western Provinces and Oudh	1889-90	—	20,66,879	2,65,731	1,56,813	1,17,351	32,096	70,056	2,420	698	3,118	13,25,027	1,09,366	14,34,393	—	41,46,437	41,46,437	0 0 9	0 1 7
	1895-96	—	18,90,528	1,73,475	2,20,291	1,45,111	32,892	84,894	1,391	1,295	2,686	11,29,911	1,04,632	12,34,543	—	37,84,420	37,84,420	0 0 8	0 1 4
Punjab	1889-90	12,35,650	21,03,778	44,290	47,663	11,055	39,204	1,35,665	1,95,870	1,036	1,96,906	16,056	3,411	19,467	1,898	25,99,926	38,35,576	0 2 0	0 2 5
	1895-96	10,07,218	23,11,133	59,234	84,378	28,481	38,872	1,76,604	2,78,197	2,181	2,80,378	75,116	3,941	79,057	58,296	31,16,433	41,23,651	0 2 0	0 2 8
Central Provinces	1889-90	5,36,155	2,78,995	1,52,133	8,272	9,271	43,598	6,330	68,553	22	68,575	79,063	—	79,063	67,334	7,13,571	12,49,726	0 0 6	0 1 5
	1895-96	3,03,527	4,01,582	1,73,043	9,224	7,767	25,628	2,780	78,436	—	78,436	1,14,101	1,308	1,15,409	94,875	9,08,744	12,12,271	0 0 8	0 1 6
Assam	1889-90	—	5,32,098	42,901	507	178	5,292	10	1,28,091	1,747	1,29,838	4,95,087	--	4,95,087	25	12,05,936	12,05,936	0 1 8	0 3 11
	1895-96	1,79,054	6,47,031	63,214	343	—	16,045	—	1,09,481	950	1,10,431	2,10,492	--	2,10,492	1,74,855	12,22,411	14,01,465	0 2 1	0 3 11
TOTAL	1889-90	82,37,763	1,57,58,643	10,37,663	7,54,310	1,75,581	7,39,225	5,08,494	19,13,763	26,442	19,40,205	38,32,897	10,32,703	48,65,600	10,07,083	2,67,83,682	3,50,21,445	0 1 5	0 2 5
	1895-96	78,30,673	1,70,85,537	10,74,588	7,54,667	2,67,323	9,12,720	5,33,709	31,79,620	1,317	31,92,799	34,26,951	9,97,301	44,24,252	15,92,711	2,98,38,306	3,76,68,979	0 1 5	0 2 6
Hyderabad Assigned Districts	1889-90	--	—	—	—	—	—	—	—	—	—	—	--	—	—	—	—	—	—
	1895-96	7,58,963	2,83,497	14,090	50,124	—	1,82,108	8,999	3,021	—	3,021	18,824	--	18,824	97,261	6,57,924	14,16,887	0 1 8	0 3 11

No. III.

LOCAL BOARDS.

EXPENDITURE (in RUPEES) of DISTRICT and LOCAL BOARDS in BRITISH INDIA during the Official Years 1889-90 and 1895-96.

NAME OF PROVINCE.		Closing Balance of last Year.	Total Income during the Year.	1.—Refunds and Drawbacks (Local Rate refunds), and in the Punjab, Assam, and Hyderabad Assigned Districts, Post Office (including District Post Establishments and Mail Cart Service).	18.—Administration (General Establishments of Local Funds).				20.—Police (Cattle Pound Charges).	22.—Education.	NAME OF PROVINCE.	
					Office Establishment.	Office Contingencies.	Payment of Establishments for Offices of Accounts, Control and Audit.	Total.				
1.		2.	3.	4.	5.	6.	7.	8.	9.	10.		
Madras	1889-90	21,48,677	76,53,951	15,722	94,406	1,30,631	89,829	3,14,866	—	8,02,251	1889-90	Madras.
	1895-96	20,69,864	89,54,875	13,876	1,40,711	1,12,735	1,15,219	3,68,665	—	11,67,168	1895-96	
Bombay	1889-90	24,88,438	41,90,458	78	76,031	14,775	72,320	1,63,126	162	12,90,679	1889-90	Bombay.
	1895-96	25,38,829	50,80,437	—	33,617	14,469	87,980	1,36,066	—	15,59,993	1895-96	
Bengal	1889-90	18,28,843	62,73,403	13,601	1,58,760	33,328	66,445	2,58,533	23,589	10,04,140	1889-90	Bengal.
	1895-96	17,32,181	67,70,987	2	1,82,846	44,062	71,041	2,97,949	16,909	12,26,642	1895-96	
North-Western Provinces and Oudh	1889-90	—	41,46,437	--	41,726	11,931	200	53,857	1,02,948	11,70,401	1889-90	North-Western Provinces and Oudh.
	1895-96	--	37,84,420	—	45,816	10,475	--	56,291	—	12,63,965	1895-96	
Punjab	1889-90	12,35,650	25,99,926	50,880	98,076	14,311	--	1,12,387	15,370	5,08,342	1889-90	Punjab.
	1895-96	10,07,218	31,16,433	57,983	1,09,768	13,160	--	1,22,928	20,532	6,46,490	1895-96	
Central Provinces	1889-90	5,36,155	7,13,571	7	25,294	3,467	6,213	34,974	51,492	1,73,456	1889-90	Central Provinces.
	1895-96	3,03,527	9,08,043	3,688	24,737	5,703	8,729	39,169	65,985	2,81,058	1895-96	
Assam	1889-90	—	12,05,936	40,769	—	—	2,763	2,763	—	1,52,197	1889-90	Assam.
	1895-96	1,79,054	12,22,411	50,445	—	—	2,828	2,828	—	1,99,407	1895-96	
TOTAL	1889-90	82,37,763	2,67,83,682	1,21,057	4,94,293	2,08,443	2,37,770	9,40,506	1,93,561	51,01,466	1889-90	TOTAL.
	1895-96	78,30,673	2,98,37,606	1,25,994	5,37,495	2,00,604	2,85,797	10,23,896	1,03,426	63,44,723	1895-96	
Hyderabad Assigned Districts	1889-90	—	--	—	—	—	—	—	--	—	1889-90	Hyderabad Assigned Districts.
	1895-96	7,58,963	6,57,924	19,116	18,321	5,089	18,917	42,327	—	2,00,570	1895-96	

No. III.—*continued.*

LOCAL BOARDS.

EXPENDITURE (in RUPEES) of DISTRICT and LOCAL BOARDS in BRITISH INDIA during the Official Years 1889–90 and 1895–96.

NAME OF PROVINCE.		24.—Medical.	32.—Miscellaneous (including Minor Works and Navigation) Local Canal Charges.	23.—Famine Relief.	Other Items.	45.—Civil Works.						NAME OF PROVINCE.	
						In charge of Officers of District and Local Boards.	In charge of Public Works Officers.				Total.		
							Original Works.	Repairs.	Establishment, Tools and Plants, and Contingencies appertaining to Public Works.	Water Supply, and Waterworks and Drainage.			
		11.	12.	13.	14.	15.	16.	17.	18.	19.	20.		
Madras	1889–90	11,72,108	2,97,171	—	6,980	10,443	8,47,166	24,22,588	5,92,331	--	38,72,528	1889–90	Madras.
	1895–96	13,25,433	3,08,456	—	62,088	10,956	7,51,587	27,81,426	6,44,815	--	41,88,784	1895–96	
Bombay	1889–90	1,70,637	1,22,118	--	57,653	11,05,876	3,46,156	4,64,373	1,05,056	19,335	20,40,796	1889–90	Bombay.
	1895–96	2,61,743	1,17,141	—	81,063	13,23,299	5,68,733	6,35,093	1,58,770	1,05,442	27,91,337	1895–96	
Bengal	1889–90	42,546	47,738	2,59,967	54,485	1,10,162	11,71,942	19,43,732	5,90,238	26,307	38,42,381	1889–90	Bengal.
	1895–96	1,92,810	74,972	664	65,943	45,682	14,09,268	23,11,022	6,48,735	57,173	44,71,880	1895–96	
North-Western Provinces and Oudh	1889–90	4,47,945	95,007	—	2,378	4,51,957	5,66,237	7,19,837	4,06,900	—	21,44,931	1889–90	North-Western Provinces and Oudh.
	1895–96	5,14,206	19,732	—	14,849	5,32,882	4,02,406	8,47,078	19,173	--	18,01,539	1895–96	
Punjab	1889–90	2,91,394	52,591	--	1,42,569	17,640	3,10,733	5,39,543	1,12,877	--	9,80,793	1889–90	Punjab.
	1895–96	3,48,113	37,850	--	2,00,639	1,19,309	2,87,925	5,73,935	1,12,639	—	10,93,862	1895–96	
Central Provinces	1889–90	50,822	7,477	--	9,796	1,50,287	1,67,732	18,780	1,464	7,319	3,45,582	1889–90	Central Provinces.
	1895–96	75,719	13,321	850	12,997	2,20,951	1,49,641	37,007	--	880	4,08,479	1895–96	
Assam	1889–90	35,521	24,638	—	638	1,591	4,87,824	3,47,278	41,324	—	8,78,017	1889–90	Assam.
	1895–96	70,756	26,446	--	788	17,717	3,35,644	3,11,395	62,818	44,231	7,71,805	1895–96	
TOTAL	1889–90	22,10,973	6,46,740	2,59,967	2,74,499	18,47,956	38,97,790	64,56,131	18,50,190	45,642	1,41,05,028	1889–90	TOTAL.
	1895–96	27,88,780	5,97,918	1,514	4,38,367	22,70,796	39,05,204	74,96,956	16,47,004	2,07,726	1,55,27,686	1895–96	
Hyderabad Assigned Districts	1889–90	--	—	—	—	—	—	—	—	—	—	1889–90	Hyderabad Assigned Districts.
	1895–96	8,073	60,629	—	27,465	—	1,28,298	1,43,651	29,901	—	3,01,850	1895–96	

No. III.—*continued.*

LOCAL BOARDS.

EXPENDITURE (in RUPEES) of DISTRICT and LOCAL BOARDS in BRITISH INDIA during the Official Years 1889-90 and 1895-96.

NAME OF PROVINCE.		Contributions.			Debt (including Payment of Loans Deposits, and Advances).	Interest on Debt on account of last and current Years.	Total Expenditure.	Balance.			NAME OF PROVINCE.	
		To Provincial.	To other Boards.	Total.				Deposits.	Actual Balance.	Total.		
		21.	22.	23.	24.	25.	26.	27.	28.	29.		
Madras	1889-90	71,139	9,52,939	10,24,078	1,26,721	8,701	76,41,126	— 28,448	21,89,950	21,61,502	1889-90	Madras.
	1895-96	1,48,095	10,09,713	11,57,808	4,19,484	4,014	90,15,776	— 2,55,683	22,64,646	20,08,963	1895-96	
Bombay	1889-90	32,885	86,952	1,19,837	58,072	14,319	40,32,776	39,143	26,22,143	26,61,286	1889-90	Bombay.
	1895-96	21,800	49,380	71,180	47,854	8,662	50,75,039	— 10,253	25,51,480	25,44,227	1895-96	
Bengal	1889-90	—	—	—	6,25,260	—	61,72,240	2,47,944	16,82,062	19,30,006	1889-90	Bengal.
	1895-96	1,054	1,685	2,739	7,36,250	10,702	70,97,463	3,36,971	10,68,718	14,05,689	1895-96	
North-Western Provinces and Oudh	1889-90	—	—	—	—	—	40,17,467	—	1,28,970	1,28,970	1889-90	North-Western Provinces and Oudh.
	1895-96	—	—	—	—	—	36,70,582	—	1,13,838	1,13,838	1895-96	
Punjab	1889-90	3,85,952	3,412	3,89,364	1,745	—	25,45,435	—	12,90,141	12,90,141	1889-90	Punjab.
	1895-96	5,58,922	3,941	5,62,863	37,714	—	31,28,974	—	9,94,677	9,94,677	1895-96	
Central Provinces	1889-90	330	—	330	68,802	—	7,42,738	—	5,06,988	5,06,988	1889-90	Central Provinces.
	1895-96	14,090	1,308	15,398	97,866	—	10,14,530	—	2,04,392	2,04,392	1895-96	
Assam	1889-90	—	—	—	25	—	11,34,568	—	71,368	71,368	1889-90	Assam.
	1895-96	—	—	—	173,437	—	12,95,912	—	1,05,553	1,05,553	1895-96	
TOTAL	1889-90	4,90,306	10,43,303	15,33,609	8,80,625	23,020	2,62,86,350	2,58,639	84,91,622	87,50,261	1889-90	TOTAL.
	1895-96	7,43,961	10,66,027	18,09,988	15,12,695	23,378	3,02,98,276	71,035	73,06,304	73,77,339	1895-96	
Hyderabad Assigned Districts	1889-90	—	—	—	—	—	—	—	—	—	1889-90	Hyderabad Assigned Districts.
	1895-96	550	—	550	93,504	—	7,54,084	—	6,62,803	6,62,803	1895-96	

FINANCE.

TABLES showing the NET REVENUE and EXPENDITURE in the several Provinces of INDIA, and in ENGLAND.

Bengal.

BENGAL.

	1895-96.				1896-97.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,954,226	923,490	—	3,877,716	2,997,256	846,497	—	3,843,753
Forest	45,923	45,923	—	91,846	68,539	68,541	—	137,080
Opium	3,249,256	—	—	3,249,256	2,441,730	—	—	2,441,730
Salt	2,447,362	17,841	—	2,465,203	2,468,553	13,424	—	2,481,977
Stamps	415,464	1,246,388	—	1,661,852	435,378	1,306,134	—	1,741,512
Excise	1,002,915	334,306	—	1,337,221	1,004,184	334,728	—	1,338,912
Provincial Rates	—	426,442	445,575	872,017	—	443,651	466,480	910,131
Customs	1,679,342	9,028	—	1,688,370	1,444,226	9,342	—	1,453,568
Assessed Taxes	239,558	231,833	—	471,391	251,891	244,306	—	496,197
Registration	66,914	66,915	—	133,829	77,088	77,087	—	154,175
Other Heads	389	74,145	10,987	85,521	1,201	67,180	15,849	84,230
TOTAL	12,101,349	3,376,311	456,562	15,934,222	11,190,046	3,410,890	482,329	15,083,265
NET EXPENDITURE:								
Interest	*—154,733*	*—2,181*	*—1,667*	*—158,581*	*—155,477*	*—1,716*	*—2,435*	*—159,628*
Collection of Revenue	279,088	601,409	33,739	914,236	303,482	614,889	35,134	953,505
Railways	*—564,632*	*—435,244*	—	*—999,876*	*—530,769*	*—448,271*	—	*—979,040*
Irrigation	—	302,188	*—1,161*	301,027	—	281,229	*—1,148*	280,081
General Administration	30,664	174,968	30,683	236,315	33,081	175,692	30,746	239,519
Law and Justice	—	938,536	—	938,536	—	975,238	—	975,238
Police	—	585,017	*—43,726*	541,291	—	603,064	*—49,306*	553,758
Education	—	203,948	116,763	320,711	—	217,637	114,711	332,348
Medical	—	161,608	16,972	178,580	—	174,155	19,717	193,872
Territorial and Political Pensions	110,363	—	—	110,363	100,502	—	—	100,502
Civil Superannuation	*—7,172*	177,156	654	170,638	*—5,757*	186,418	1,033	181,694
Stationery and Printing	193,501	95,367	5,066	293,934	184,863	97,066	5,727	287,656
Civil Works	44,266	275,774	432,477	752,517	67,359	331,151	375,619	774,129
Famine Relief and Insurance	—	—	67	67	—	215,526	28,682	244,208
Other Heads	28,603	21,415	34,834	84,852	30,492	20,084	34,082	84,658
Provincial and Local Balances	—	149,808	*—41,597*	108,211	—	*—186,558*	45,053	*—141,505*
TOTAL	*—40,052*	3,249,769	583,104	3,792,821	27,776	3,255,604	637,615	3,920,995
Surplus	12,141,401	126,542	*—126,542*	12,141,401	11,162,270	155,286	*—155,286*	11,162,270

NORTH-WEST PROVINCES AND OUDH.

	1895-96.				1896-97.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	4,637,568	1,350,192	2,671	5,990,431	3,749,566	1,189,507	3,274	4,942,347
Forest	79,927	79,927	—	159,854	72,029	72,029	—	144,058
Opium	52,876	—	—	52,876	48,535	—	—	48,535
Stamps	180,657	541,972	—	722,629	175,301	525,904	—	701,205
Excise	410,343	137,212	—	547,555	333,787	111,545	—	445,332
Provincial Rates	—	174,463	789,446	963,909	—	157,999	716,482	874,481
Assessed Taxes	126,370	119,833	—	246,203	126,122	119,528	—	245,650
Other Heads	14,586	37,352	11,614	63,552	21,404	38,856	11,478	71,738
TOTAL	5,502,327	2,440,951	803,731	8,747,009	4,526,744	2,215,368	731,234	7,473,346
NET EXPENDITURE:								
Interest	74,212	*—6,354*	*—2,198*	65,660	73,043	*9,566*	*—1,713*	80,896
Collection of Revenue	66,308	509,032	342,699	918,039	63,976	501,429	353,092	918,497
Railways	*—637,274*	—	—	*—637,274*	*—546,475*	—	—	*—546,475*
Irrigation	*—111,239*	139,463	—	28,124	*—116,839*	*—200,515*	—	*—317,354*
General Administration	25,286	141,380	7,961	174,627	23,154	136,670	8,068	167,892
Law and Justice	—	591,537	—	591,537	—	638,137	—	638,137
Police	—	402,786	264,696	667,482	—	418,977	264,863	683,840
Education	—	42,439	120,895	163,334	—	58,518	123,992	182,510
Medical	—	71,391	40,403	111,794	—	71,774	41,849	113,623
Territorial and Political Pensions.	97,933	—	—	97,933	96,735	—	—	96,735
Civil Superannuation	*—12,233*	194,531	1,762	184,060	*—10,504*	199,193	1,901	190,590
Stationery and Printing	*—1,223*	68,066	1,079	67,922	*—1,294*	56,233	1,024	55,963
Civil Works	14,974	207,652	215,936	438,562	17,959	224,417	209,574	451,950
Famine Relief and Insurance	733	17,904	—	18,637	997,691	—	—	997,691
Other Heads	44,955	5,953	21,287	72,195	45,700	7,268	22,125	75,093
Provincial and Local Balances	—	*—139,798*	*—15,820*	*—155,618*	—	*—164,740*	*—35,100*	*—199,840*
TOTAL	*—437,668*	2,245,982	998,700	2,807,014	643,146	1,956,927	989,675	3,589,748
Surplus	5,939,995	194,969	*—194,969*	5,939,995	3,883,598	258,441	*—258,441*	3,883,598

PUNJAB.

	1895-96.				1896-97.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - -	1,409,598	966,367	4,170	2,380,135	1,308,192	946,352	4,267	2,258,811
Forest - - - - - -	50,721	50,721	—	101,442	55,363	55,363	—	110,726
Stamps - - - - - -	105,557	316,671	—	422,228	113,765	341,298	—	455,063
Excise - - - - - -	159,953	53,524	—	213,477	163,674	54,741	—	218,415
Provincial Rates - - -	—	60,295	364,967	425,262	—	57,749	351,034	408,783
Assessed Taxes - - -	80,132	64,847	—	144,979	80,015	65,831	—	145,846
Other Heads - - - -	53,376	24,281	741	78,398	61,129	28,309	1,196	90,634
TOTAL - - -	1,859,337	1,536,706	369,878	3,765,921	1,782,138	1,549,643	356,497	3,688,278
NET EXPENDITURE:								
Military Works - - -	74,866	—	—	74,866	61,319	—	—	61,319
Collection of Revenue - -	48,395	313,162	133,728	495,285	52,393	326,206	133,557	512,156
Railways - - - - -	*—1,500,943*	—	—	*—1,600,943*	*—1,155,681*	—	—	*—1,155,681*
Irrigation - - -	*—390,911*	*—5,053*	*—2,212*	*—398,176*	*—741,779*	*—6,141*	3,931	*—743,989*
General Administration -	18,581	107,471	13,092	139,144	17,689	105,672	14,306	137,667
Law and Justice - - -	—	356,584	*—85*	356,499	—	383,500	*—112*	383,388
Police - - - - - -	—	324,107	*—3,940*	320,167	—	341,075	*—3,477*	337,598
Education - - - - -	—	72,091	56,211	128,302	—	70,771	55,713	126,484
Medical - - - - -	—	59,204	31,963	91,167	—	60,091	32,340	92,431
Political - - - - -	194,817	—	—	194,817	201,602	—	—	201,602
Territorial and Political Pensions.	31,137	—	—	31,137	30,019	—	—	30,019
Civil Superannuation - -	*—5,848*	93,493	349	87,994	*—6,733*	97,532	328	91,127
Stationery and Printing -	*—2,470*	39,478	2,766	39,774	*—2,418*	39,861	2,694	40,137
Civil Works - - -	35,619	222,391	81,348	339,358	69,178	202,491	64,551	336,220
Other Heads - - - -	51,935	17,823	6,339	76,097	88,847	51,616	40,287	180,750
Provincial and Local Balances	—	*—7,156*	*—6,570*	*—13,726*	—	*—64,078*	*—46,579*	*—110,652*
TOTAL - - -	*—1,544,822*	1,593,595	312,989	361,762	*—1,385,564*	1,608,601	297,539	520,576
Surplus - - -	3,404,159	*—56,889*	56,889	3,404,159	3,167,702	*—58,958*	58,958	3,167,702

BURMA.

Burma.

	1895-96.				1896-97.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,447,638	1,030,212	458	2,478,308	1,524,504	862,743	565	2,387,812
Forest	398,775	170,683	—	569,458	446,789	190,851	—	637,640
Salt	153,423	—	—	153,423	140,207	—	—	140,207
Stamps	67,452	100,250	—	167,702	66,766	95,632	—	162,398
Excise	304,324	79,550	—	383,874	334,389	86,651	—	421,040
Provincial Rates	—	—	112,623	112,623	—	—	114,661	114,661
Customs	915,534	1,925	—	917,459	752,984	2,599	—	755,583
Assessed Taxes	48,449	32,561	—	81,010	50,559	34,429	—	84,988
Other Heads	63,757	2,263	29,004	95,024	61,565	1,420	31,945	94,930
TOTAL	3,399,352	1,417,444	142,085	4,958,881	3,377,763	1,274,325	147,171	4,799,259
NET EXPENDITURE:								
Military Works	94,971	—	—	94,971	90,483	—	—	90,483
Collection of Revenue	353,648	341,241	5,515	700,404	351,674	342,738	5,005	699,417
Railways	41,519	*—92,325*	—	*—50,806*	*—806*	*—121,189*	—	*—121,495*
Irrigation	48,414	23,393	1,117	72,924	75,403	50,380	*—877*	124,906
General Administration	45,580	72,775	2,488	120,843	45,270	77,172	1,478	123,920
Law and Justice	91,865	183,830	—	275,695	98,130	203,474	—	301,604
Police	578,622	295,317	*—3,756*	870,183	567,731	299,783	*—3,786*	863,728
Marine	41,334	10,027	4,847	56,208	45,148	11,303	7,293	63,744
Education	13,981	40,834	14,709	69,524	14,817	39,660	15,585	70,062
Medical	16,857	23,736	7,014	47,607	17,829	26,234	7,695	51,758
Political	44,074	—	—	44,074	35,346	—	—	35,346
Stationery and Printing	296	50,499	—	50,795	*—1,991*	50,814	—	48,823
Civil Works	291,379	211,191	97,901	600,471	290,642	268,973	88,539	648,154
Other Heads	32,245	39,311	11,948	83,504	86,234	39,957	12,960	139,151
Provincial and Local Balances	—	226,505	*—8,588*	217,917	—	780	*—2,475*	*—1,695*
TOTAL	1,694,785	1,426,334	133,195	3,254,314	1,716,410	1,290,079	131,417	3,137,906
Surplus	1,704,567	*—8,890*	8,890	1,704,567	1,661,353	*—15,754*	15,754	1,661,353

FINANCE.

Central Provinces.

CENTRAL PROVINCES.

	1895-96.				1896-97.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	306,061	453,441	—	759,502	219,756	437,350	—	657,106
Forest	49,638	49,639	—	99,277	38,616	38,616	—	77,232
Stamps	42,407	127,218	—	169,625	42,731	128,193	—	170,924
Excise	183,199	61,587	—	244,786	156,591	52,670	—	209,261
Provincial Rates	—	25,609	89,133	114,742	—	19,939	85,014	104,953
Assessed Taxes	24,727	23,660	—	48,387	25,672	24,730	—	50,402
Other Heads	55,825	7,632	1,230	64,687	64,474	6,280	923	71,677
TOTAL	661,857	748,786	90,363	1,501,006	547,840	707,778	85,937	1,341,555
NET EXPENDITURE:								
Collection of Revenue	55,717	171,662	49,899	277,278	55,248	174,213	50,437	279,898
Railways	*—336,463*	—	—	*—336,463*	*—248,629*	—	—	*—248,629*
General Administration	7,521	48,863	3,115	59,499	7,574	50,194	3,176	60,944
Law and Justice	—	112,728	—	112,728	—	115,871	—	115,871
Police	—	142,999	*—10,691*	132,308	—	147,644	*—10,985*	136,659
Education	—	29,800	27,182	56,982	—	33,920	27,193	61,113
Medical	—	29,301	6,775	36,076	—	30,403	8,417	38,820
Territorial and Political Pensions.	25,547	—	—	25,547	24,768	—	—	24,768
Civil Works	2,043	129,322	33,032	164,397	851	123,483	22,873	147,207
Famine Relief and Insurance	—	—	—	—	295,268	—	8,003	303,271
Other Heads	1,396	55,330	1,144	57,870	2,682	56,007	728	59,417
Provincial and Local Balances	—	19,653	*—10,965*	8,688	—	*—37,408*	*—10,454*	*—47,862*
TOTAL	*—244,239*	739,658	99,491	594,910	137,762	694,327	99,388	931,477
Surplus	906,096	9,128	*—9,128*	906,096	410,078	13,451	*—13,451*	410,078

Assam.

ASSAM.

	1895-96.				1896-97.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	167,315	427,638	—	594,953	184,807	418,727	—	603,534
Opium	44,986	—	—	44,986	45,229	—	—	45,229
Stamps	21,976	65,926	—	87,902	22,360	67,076	—	89,436
Excise	208,188	69,397	—	277,585	208,564	69,522	—	278,086
Provincial Rates	—	—	64,437	64,437	—	—	63,953	63,953
Other Heads	43,172	43,164	*—1,172*	85,164	42,468	35,623	*—610*	77,481
TOTAL	485,637	606,125	63,265	1,155,027	503,428	590,948	63,343	1,157,719
NET EXPENDITURE:								
Collection of Revenue	17,256	119,348	259	136,863	17,028	116,283	251	133,562
General Administration	5,283	30,086	283	35,652	5,319	30,542	277	36,139
Law and Justice	—	50,229	—	50,229	—	54,996	—	54,996
Police	—	122,704	*—6,321*	116,383	—	137,187	*—6,958*	130,229
Education	—	15,033	20,124	35,157	—	15,199	20,469	35,668
Medical	—	22,658	9,755	32,413	—	22,167	10,996	33,163
Civil Works	42,220	140,021	66,138	248,379	31,624	160,282	63,442	255,348
Other Heads	7,022	54,490	284	61,796	26,446	57,648	*—699*	83,395
Provincial and Local Balances	—	30,507	*—6,208*	24,299	—	*—25,421*	*—2,370*	*—27,791*
TOTAL	71,781	585,076	84,314	741,171	80,417	568,883	85,408	734,708
Surplus	413,856	21,049	*—21,049*	413,856	423,011	22,065	*—22,065*	423,011

INDIA, GENERAL, *i.e.*, the Departments and Districts not administered directly by the Lieutenant Governors and Chief Commissioners of the Provinces previously enumerated.

	1895-96.				1896-97.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	141,132	—	55	141,187	141,316	—	60	141,376
Tributes from Native States	210,262	—	—	210,262	214,940	—	—	214,940
Salt	1,601,292	—	—	1,601,292	1,544,457	—	—	1,544,457
Stamps	53,873	—	—	53,873	57,147	—	—	57,147
Excise	108,938	—	655	109,593	107,093	—	345	107,438
Assessed Taxes	147,848	—	—	147,848	143,158	—	—	143,158
Exchange on Remittance Transactions.	178,306	—	—	178,306	144,233	—	—	144,233
Other Heads	56,786	—	8,149	64,935	181,971	—	8,429	190,400
TOTAL	2,498,437	—	8,859	2,507,296	2,534,315	—	8,834	2,543,149
NET EXPENDITURE:								
Interest	*—1,152,517*	—	*—32*	*—1,152,549*	*—1,612,890*	—	*—30*	*—1,612,920*
Army	10,701,663	—	—	10,701,663	9,758,170	—	—	9,758,170
Military Works	889,603	—	—	889,603	848,556	—	—	848,556
Special Defence Works	21,716	—	—	21,716	21,753	—	—	21,753
Collection of Revenue	125,583	—	3,093	128,676	150,802	—	3,348	154,150
Post Office	*—368,480*	—	73	*—368,407*	*—382,074*	—	75	*—381,999*
Telegraph	*—355,860*	—	—	*—355,860*	*—315,777*	—	—	*—315,777*
Railways	*—4,151,273*	—	—	*—4,151,273*	*—3,175,369*	—	—	*—3,175,369*
Irrigation	679,595	—	—	679,595	705,093	—	—	705,093
General Administration	469,498	—	218	469,716	457,350	—	202	457,552
Law and Justice	109,499	—	*—21*	109,478	119,559	—	*—57*	119,502
Police	55,788	—	414	56,202	58,976	—	583	59,559
Marine	114,154	—	—	114,154	131,612	—	—	131,612
Political	590,021	—	24	590,045	577,628	—	24	577,652
Scientific and other Minor Departments.	234,025	—	147	234,172	263,095	—	182	263,277
Stationery and Printing	*—173,197*	—	19	*—173,178*	*—155,619*	—	23	*—155,596*
Civil Works	132,743	—	2,472	135,215	138,492	—	3,552	142,044
Other Heads	53,953	—	2,901	56,854	55,038	—	2,943	57,981
Local Balances	—	—	*—449*	*—449*	—	—	*—2,011*	*—2,011*
TOTAL	7,976,514	—	8,859	7,985,373	7,644,395	—	8,834	7,653,229
Surplus	*—5,478,077*	—	—	*—5,478,077*	*—5,110,080*	—	—	*—5,110,080*

MADRAS.

	1895-96.				1896-97.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	3,001,554	1,682,185	264,752	4,948,491	2,768,754	1,580,477	233,886	4,583,117
Forest	104,634	104,635	—	209,269	113,080	113,079	—	226,159
Tributes from Native States	342,591	—	—	342,591	449,202	—	—	449,202
Salt	1,930,150	16,059	—	1,946,209	1,630,619	13,358	—	1,643,977
Stamps	196,995	590,987	—	787,982	196,019	588,060	—	784,079
Excise	1,077,642	359,335	—	1,436,977	1,115,689	372,017	—	1,487,706
Provincial Rates	—	—	795,445	795,445	—	—	741,263	741,263
Customs	378,434	8,282	—	386,716	368,023	6,825	—	374,848
Assessed Taxes	133,601	113,089	—	246,690	141,719	121,867	—	263,586
Registration	60,887	60,888	—	121,775	60,427	60,429	—	120,856
Miscellaneous	*—329*	3,119	31,792	34,582	427	1,594	29,669	31,690
TOTAL	7,226,159	2,938,579	1,091,989	11,256,727	6,843,959	2,857,706	1,004,818	10,706,483
NET EXPENDITURE:								
Army	3,297,116	—	—	3,297,116	3,300,583	—	—	3,300,583
Collection of Revenue	343,900	763,493	460,073	1,567,466	349,385	768,497	454,058	1,571,940
Railways	*—472,696*	*—9,372*	—	*—482,068*	*—517,118*	*—10,529*	—	*—527,647*
Irrigation	*—480,836*	338,876	2,742	*—139,218*	*—476,137*	405,328	1,036	*—69,773*
General Administration	29,224	102,669	32,611	164,504	31,786	99,202	33,234	164,222
Law and Justice	—	447,902	—	447,902	—	453,477	—	453,477
Police	—	410,331	—	410,331	—	419,769	—	419,769
Education	—	147,589	94,126	241,715	—	147,698	89,993	237,691
Medical	—	116,660	139,488	256,148	—	120,937	140,113	261,050
Territorial and Political Pensions.	65,459	—	—	65,459	65,350	—	—	65,350
Civil Superannuation	*—8,852*	143,909	1,098	136,155	*—7,158*	152,087	1,185	146,114
Stationery and Printing	34,118	81,509	—	115,627	35,315	80,399	—	115,714
Construction of Protective Works.	552,515	—	—	552,515	20,406	—	—	20,406
Civil Works	3,653	319,109	328,031	650,793	4,663	302,536	332,316	639,515
Other Heads	22,642	31,857	*—3,903*	50,596	23,093	94,843	5,188	123,124
Provincial and Local Balances	—	44,118	37,652	81,770	—	*—200,579*	*—28,264*	*—228,843*
TOTAL	3,386,243	2,938,650	1,091,918	7,416,811	2,830,168	2,833,665	1,028,859	6,692,692
Surplus	3,839,916	*—71*	71	3,839,916	4,013,791	24,041	*—24,041*	4,013,791

BOMBAY.

Bombay.

	1895-96.				1896-97.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,063,620	1,814,916	15,021	3,893,557	1,734,791	1,645,993	16,045	3,396,829
Forest	176,298	176,298	—	352,596	151,158	151,157	—	302,315
Tributes from Native States	133,452	*—16,160*	—	117,292	133,624	*—17,476*	—	116,148
Opium	1,657,093	*—4,577*	—	1,652,516	1,335,682	*—4,582*	—	1,331,100
Salt	2,299,024	2,342	—	2,301,366	2,222,134	2,791	—	2,224,925
Stamps	150,574	451,720	—	602,294	139,828	419,497	—	559,325
Excise	826,392	275,463	—	1,101,855	772,808	257,603	—	1,030,411
Provincial Rates	—	—	337,383	337,383	—	—	298,656	298,656
Customs	1,884,707	8,889	—	1,893,596	1,749,451	8,762	—	1,758,213
Assessed Taxes	222,116	182,551	—	404,667	216,474	183,111	—	399,585
Registration	32,567	32,567	—	65,134	33,076	33,074	—	66,150
Other Heads	38,638	*—13,378*	*—5,284*	19,976	33,652	*—11,273*	*—7,553*	14,826
TOTAL	9,484,481	2,910,631	347,120	12,742,232	8,522,678	2,668,657	307,148	11,498,483
NET EXPENDITURE:								
Interest	*—91,696*	*—6,050*	76	*—97,670*	*—117,279*	1,458	*—45*	*—115,866*
Army	3,275,845	—	—	3,275,845	3,378,467	—	—	3,378,467
Collection of Revenue	392,045	779,611	38,290	1,209,946	400,495	781,309	46,001	1,227,805
Railways	*—237,238*	*—4,858*	—	*—242,096*	*—213,623*	*—5,642*	—	*—219,265*
Irrigation	130,757	*—150*	—	130,607	116,014	2,744	—	118,758
General Administration	44,714	144,311	4,764	193,789	43,642	150,981	4,801	199,424
Law and Justice	—	471,590	—	471,590	—	468,427	—	468,427
Police	—	526,302	*—19,366*	506,936	—	548,570	*—15,049*	533,521
Education	—	144,227	139,400	283,627	—	151,562	139,139	290,701
Ecclesiastical	40,989	—	—	40,989	38,345	—	—	38,345
Medical	—	143,020	17,322	160,342	—	154,820	8,780	163,600
Political	63,583	37,019	—	100,602	65,120	36,174	—	101,294
Territorial and Political Pensions.	64,800	—	—	64,800	66,988	—	—	66,988
Civil Superannuation	*—6,482*	154,325	365	148,208	*—6,267*	162,134	399	156,266
Stationery and Printing	30,540	70,316	607	101,463	31,046	73,568	949	105,563
Civil Works	21,648	252,658	227,951	502,257	20,880	238,560	229,138	488,578
Famine Relief and Insurance	2,665	—	—	2,665	301,983	23,971	1,536	327,490
Other Heads	25,050	22,300	5,704	53,054	22,627	29,875	5,083	57,585
Provincial and Local Balances	—	100,690	7,327	108,017	—	*—221,119*	*—42,319*	*—263,438*
TOTAL	3,757,220	2,835,311	422,440	7,014,971	4,148,438	2,597,392	378,413	7,124,243
Surplus	5,727,261	75,320	*—75,320*	5,727,261	4,374,240	71,265	*—71,265*	4,374,240

FINANCE.

NET EXPENDITURE in *England*, with the EXCHANGE thereon.

NET EXPENDITURE.	1895-96.			1896-97.		
	Sterling.	Exchange.	TOTAL.	Sterling.	Exchange.	TOTAL.
	£.	Rx.	Rx.	£.	Rx.	Rx.
Interest	2,609,326	1,982,487	4,591,813	2,528,609	1,670,990	4,199,599
Army: Effective	1,753,817	1,332,497	3,086,314	1,777,419	1,174,579	2,951,998
„ Non-effective	2,306,670	1,752,538	4,059,208	2,355,919	1,556,871	3,912,790
Military Works	30,947	23,513	54,460	24,725	16,339	41,064
Special Defence Works	45,252	34,381	79,633	43,868	28,989	72,857
Collection of Revenue (Stamps, &c.)	45,644	34,679	80,323	50,526	33,389	83,915
Post Office	106,666	81,042	187,708	111,452	73,651	185,103
Telegraph	95,338	72,435	167,773	115,010	76,002	191,012
Railways	5,747,552	4,366,814	10,114,366	5,790,337	3,826,449	9,616,786
General Administration	243,955	185,350	429,305	260,322	172,030	432,352
Marine	236,599	179,761	416,360	212,785	140,615	353,400
Political	47,693	36,236	83,929	24,186	15,983	40,169
Scientific and other minor Departments	25,842	19,634	45,476	29,699	19,626	49,325
Civil Furlough Allowances	223,537	169,837	393,374	225,783	149,205	374,988
Superannuation	1,720,793	1,307,407	3,028,200	1,780,733	1,176,768	2,957,501
Stationery and Printing	45,443	34,526	79,969	41,807	27,628	69,435
Civil Works	61,651	46,841	108,492	65,147	43,051	108,198
Other Heads	53,228	25,245	58,473	30,402	20,091	50,493
TOTAL	15,379,953	11,685,223	27,065,176	15,468,729	10,222,256	25,690,985

SUMMARY.

PROVINCES, &c.	1895-96.		1896-97.	
	Surplus.	Deficit.	Surplus.	Deficit.
	Rx.	Rx.	Rx.	Rx.
BENGAL	12,141,401		11,162,270	
NORTH-WEST PROVINCES and OUDH	5,939,995		3,883,598	
PUNJAB	3,404,159		3,167,762	
BURMA	1,704,567		1,661,353	
CENTRAL PROVINCES	906,096		410,078	
ASSAM	413,856		423,011	
INDIA GENERAL	—	5,478,077	—	5,110,080
MADRAS	3,839,916		4,013,791	
BOMBAY	5,727,261		4,374,240	
ENGLAND and EXCHANGE	—	27,065,176	—	25,690,985
TOTAL	1,533,998			1,705,022

EAST INDIA (PROGRESS AND CONDITION)

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1897-98.

THIRTY-FOURTH NUMBER.

(*PRESENTED PURSUANT TO ACT* 21 & 22 *VICT.* c. 106, s. 53.)

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India Office,
June 1899.

ARTHUR GODLEY,
Under Secretary of State for India.

CHAPTER I.

ADMINISTRATION.

LIST of the holders in 1897–98, of the more important appointments connected with the Administration of India, those appointed during the year being shown *in italics*.

OFFICE.		Date of Appointment or Assumption of Charge of Office.	REMARKS.
Secretary of State	The Right Hon. Lord George Hamilton.	5 July 1895	
Permanent Under Secretary of State.	Sir Arthur Godley, K.C.B.	30 September 1883	
Parliamentary Under Secretary of State.	The Earl of Onslow, G.C.M.G.	5 July 1895	
Members of the Council of India	Field Marshal Sir Donald M. Stewart, Bart., G.C.B., G.C.S.I., C.I.E.	16 December 1885	Re-appointed, 16 December 1895.
	Sir Alexander J. Arbuthnot, K.C.S.I., C.I.E.	1 November 1887	Period of office expired 31 October 1897.
	Sir James B. Peile, K.C.S.I.	12 November „	Re-appointed, 12 November 1897.
	Sir Alfred C. Lyall, K.C.B., G.C.I.E.	17 January 1888	Re-appointed, 12 November 1897.
	Sir Charles A. Turner, K.C.I.E.	21 February „	Period of office expired 20 February 1898.
	Lieutenant-General Sir Archibald Alison, Bart., G.C.B.	1 January 1889	
	Sir Charles H. T. Crosthwaite, K.C.S.I.	3 March 1895	
	Sir Steuart C. Bayley, K.C.S.I., C.I.E.	16 September „	
	F. C. Le Marchant	27 February 1896	
	General J. J. H. Gordon, C.B.	1 January 1897	
	Sir Dennis Fitzpatrick, K.C.S.I.	24 April „	
	Sir J. L. Mackay, K.C.I.E.	27 April „	In succession to Mr. Hardie.
	Sir John Edge, Q.C.	30 March 1898	In succession to Sir C. Turner.
Governor-General	The Right Hon. the Earl of Elgin and Kincardine, G.M.S.I., G.M.I.E.	27 January 1894	
Members of Council	General Sir Geo. S. White, V.C., G.C.I.E., K.C.B. (*ex officio*).		Lieutenant-General Sir Charles E. Nairne, K.C.B., was appointed on the 20th March 1898 provisional Commander-in-Chief on the retirement of Sir G. S. White.
	Sir James Westland, K.C.S.I.	27 November 1893	
	Sir John Woodburn, K.C.S.I.	23 December 1895	
	M. D. Chalmers	8 April 1896	
	Major-General Sir E. H. Collen, K.C.I.E.	27 April „	
	Sir A. C. Trevor, K.C.S.I.	2 May „	
	C. M. Rivaz, C.S.I.	18 October 1897	Temporarily to 19 February 1898.
Lieutenant-Governor of Bengal	Sir Alexander Mackenzie, K.C.S.I.	18 December 1895	
	Charles Cecil Stevens, C.S.I.	23 June 1897	Officiating during the absence of Sir Alexander Mackenzie on leave.
Lieutenant-Governor of the North Western Provinces and Chief Commissioner of Oudh.	Sir Antony P. MacDonnell, G.C.S.I.	6 November 1895	
	J. J. D. La Touche, C.S.I.	6 May „	Officiating during the absence of Sir A. P. McDonnell on leave.
Lieutenant-Governor of the Punjab.	Sir William Mackworth Young, K.C.S.I.	6 March 1897	
Lieutenant-Governor of Burma	Sir F. W. R. Fryer, K.C.S.I.	3 April 1895	Formerly Chief Commissioner.
Chief Commissioner of Central Provinces.	Sir C. J. Lyall, K.C.S.I., C.I.E.	21 December „	
Chief Commissioner of Assam	H. J. S. Cotton, C.S.I.	28 November 1896	
Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmere-Merwara.	*A. H. T. Martindale*	9 March 1898	In succession to Sir R. J. Crosthwaite, K.C.S.I.

ADMINISTRATION.

OFFICE.	——	Date of Appointment or Assumption of Charge of Office.	REMARKS.
Resident in Mysore and Chief Commissioner of Coorg.	Lieutenant-Colonel D. Robertson.	7 December 1896	
Resident, Hyderabad - - -	Trevor J. C. Chichele-Plowden, C.S.I.	6 March 1892	
Agent to the Governor-General in Central India.	Lieutenant-Colonel D. W. K. Barr, C.S.I.	20 March 1895	
Resident in Kashmir - - -	Lieutenant-Colonel Sir Adalbert C. Talbot, K.C.I.E.	14 June 1896	
Resident and Agent to the Governor-General, Baroda.	Lieutenant-Colonel N. C. Martelli.	25 July 1895	
Agent to the Governor-General for Baluchistan and Chief Commissioner of British Baluchistan.	H. S. Barnes, C.S.I. - -	14 June 1896	
Political Resident, Persian Gulf -	*Lieutenant-Colonel M. J. Meade.*	10 March 1898	In succession to Col. F. A. Wilson.
Governor of Madras - - -	Sir Arthur E. Havelock, G.C.M.G., G.C.I.E.	18 March 1896	
Members of Council - -	Sir H. W. Bliss, K.C.I.E. -	9 November 1893	
	James Grose, C.I.E. - -	9 January 1894	
Governor of Bombay - - -	Lord Sandhurst, G.C.I.E. -	18 February 1895	
Members of Council - -	H. M. Birdwood, C.S.I. -	24 April 1892	Period of office expired, 23 April 1897.
	J. Nugent, C.S.I. - -	12 July 1896	
	Sir E. C. K. Olivant, K.C.I.E.	24 April 1897	
Political Resident, Aden - -	Brigadier-General C. A. Cunningham.	9 May 1895	

LEGISLATION.

LEGISLATION.

Between the 1st April 1897 and the 31st March 1898 ten Acts were passed by the Council of the Governor-General for making Laws and Regulations; four, two, and three respectively were passed by the Legislative Councils of Madras, Bombay, and Bengal, and one each by those of the North-Western Provinces, Punjab, and Burma.

Four Regulations were also passed by the Governor-General in Council on the recommendation of the local governments of the provinces affected by them, in accordance with the provisions of 33 Vict. c. 3.

The following are the most important of the measures referred to:—

Governor General's Council.

Act XV of 1897 (The Cantonments Act) repeals Act V of 1895 and thereby restores to the Governor-General in Council the power to make rules to check the spread of venereal diseases in cantonments, giving him the same powers in respect of venereal disease that he has in the case of other contagious and infectious disorders.

Act XVI of 1897 amends the Oudh Courts Act, 1891, so as to take power to strengthen the Court for the time being by the appointment of a third judge.

Act II of 1898 "provides for the issue of currency notes on the security of gold received in England." Under the Indian Paper Currency Act, 1882, the Governor-General in Council was authorised to direct that currency notes should be issued by the Paper Currency Department in exchange for gold coins and bullion received in India at the office of issue. The new Act extends this provision so as to allow the issue of currency notes against gold received in London by Her Majesty's Secretary of State if he consents to receive the gold and to transmit it to India.

Act III of 1898 provides for "the segregation and medical treatment of pauper lepers and the control of lepers following certain callings." It gives effect to the recommendations of the Leprosy Commission which visited India in 1890, and is on the lines of legislation adopted in Bengal. Its provisions will be applied to any part of India on the issue of a notification by the Local Government with the previous sanction of the Governor-General in Council. Where adequate provision has already been made, as in Bengal, the local law will be allowed to continue in force.

Act IV of 1898 to amend the Penal Code (Act XLV, 1860) in regard to extra-territorial offences, sedition and other matters. The Bill as first introduced had for its object simply to define the extent to which the code applied to offences committed outside British India. At the time when the Indian Penal Code was passed Parliament had only conferred on the Indian Legislature the power of dealing with extra-territorial offences where the offence was committed by a servant of Government. But since 1860 Parliament has conferred various extra-territorial powers on the Indian Legislature. These powers had to a large extent been exercised under the Foreign Jurisdiction Act, 1879; but no corresponding amendments had been made in the Indian Penal Code. This defect is remedied by the present Act. Opportunity was taken to amend the code in regard to sedition and other offences, new sections being substituted for sections 124A and 505 and a new section 153A inserted after section 153. LEGISLATION.

Act V of 1898 "to consolidate and amend the law relating to Criminal Procedure" incorporates 16 Acts which had been passed since the Code was last revised in 1882, and many amendments remedying defects which in the interval had come to light and had not been affected by the amending Acts. The amendments of certain sections of Chapter VIII are complementary to the amendments in the sedition sections of the Penal Code.†

Act VI of 1899 "to consolidate and amend the law relating to the Post Office in India" is intended to supply the defects and omissions which have been brought to notice in the Act of 1866 and to confer the protection and powers which have been found necessary in the extension and increase of postal business.

Act VII "to further amend the Petroleum Act, 1886," extends the definition of petroleum by including paints, varnishes, &c., containing inflammable material; and empowers the Governor-General in Council to prescribe additional tests on notification in the Gazette of India.

Act III of 1897 "for the suppression of Rain-gambling in common gaming-houses" deals with a form of public gambling which for many years was practised mainly by the Marwaris, by whom it had been introduced into Calcutta. Of late years the evil had assumed large proportions; crowds of all nationalities, and chiefly of the poorer classes, frequented the gambling establishments from morning to night, and even native women and children took part in the betting. The proprietors of the premises offered odds against rain from level money sometimes up to 50 to 1. Those who backed the rain did not win unless the fall sufficed to cause an overflow from a small raised tank through a spout which was visible from the courtyard. The action of the Government received the almost unanimous support of the native associations which were consulted in the matter. Bengal.

Act IV of 1897 "to regulate the commutation of predial conditions or services in Chota Nagpur" is designed to remedy the defects of a system of tenure which have been the cause of a long series of disputes between the aboriginal cultivators of the soil and their alien landlords,—disputes culminating in a serious agitation which menaced the peace of the country and gave much trouble to the district authorities. There were faults on both sides, the zamindars demanding more than they were entitled to and the raiyats refusing to pay their legitimate dues. Under the peculiar system prevailing in Chota Nagpur rents are payable in money, in kind, and in service, which could be commuted into a money rental only if the parties came forward of their own accord and applied for it. Under the new Act Government is empowered to insist upon commutation, not in every case of dispute, but when the peace of the district is threatened.

Act V of 1897 "to amend the law relating to the Partition of Estates" has for its primary and chief object to simplify, cheapen, and shorten the procedure for effecting partitions of estates in Bengal. A secondary but very important object of the Act is to impose some limit on the endless divisibility of responsibility for land revenue to the State allowed under the law now amended.

† *See* Papers relating to amendments in the Law relating to sedition and defamation (c. 8871) presented in 1898 to both Houses by Command.

LEGISLATION.

North-Western Provinces and Oudh.

Act I of 1897 provides for the summary realisation of sums due on account of loans granted by the Local Government during the pending famine operations. Under it such loans are recoverable from the recipients as if they were arrears of land revenue, in the same way that similar advances are recoverable under the Land Improvement Loans and Agriculturists Loans Acts. The present Act applies only to loans granted during the year preceding the 1st October 1897.

Madras.

Act III of 1897 amends the Madras District Municipalities Act IV of 1884. Its main points are that it provides for the formal consideration by Government of objections to the formation or dissolution of municipalities; it gives the Government power to suspend for a time from its functions a municipal council which persists in neglecting its duties; it defines the qualifications for the office of municipal councillor; and it provides for the punishment of the giver and receiver of bribes at an election. In view of the enormous advance which has been made since 1884 in every branch of municipal administration, and the growing demands for water and drainage works, for education and medical aid, the Act raises the maximum rate of municipal taxation, which, however, is not expected to be reached for many years to come. The Bill was introduced in March 1894, and was for three years the subject of discussion and the most careful consideration.

Bombay.

Act III of 1897 to amend Act VIII of 1870 (for the prevention of the murder of female infants). By the amending Act the accumulated fees acquired by registrations under the Act of 1870 in the districts of Ahmedabad and Kaira, were handed over to the respective Local Boards to be devoted to local improvements.

Burma and the Punjab.

THE following proclamations, raising the status of Burma to a Lieut.-Governorship, and conferring a legislative council upon that province, and the Punjab, to which the sanction of Her Majesty the Queen, Empress of India, had been signified by the Secretary of State in Council, as required by section 49 of the Indian Councils Act, 1861, were published in the Gazette of India on the 10th April 1897.

"The Governor-General in Council is pleased to extend to the territories known as the *Punjab*, the provisions of the Indian Councils Act, 1861 (24 & 25 Vict. c. 67), touching the making of laws and regulations for the peace and good government of the Presidencies of Fort St. George and Bombay."

"The Governor-General is pleased to constitute the territories at present under the administration of the Chief Commissioner of *Burma* to be, for the purposes of the Indian Councils Act, 1861 (24 & 25 Vict. c. 67), a province to which the provisions of that Act, touching the making of laws and regulations for the peace and good government of the Presidencies of Fort St. George and Bombay shall be applicable, and further to appoint Sir Frederic Wm. Richard Fryer, K.C.S.I., of the Indian Civil Service, now Chief Commissioner of Burma, to be the first Lieutenant-Governor of that province, with all powers and authority incident to such office."

In both cases the first day of May 1897 was specified as the date on which the said provisions should take effect, and nine as the number of councillors whom the Lieutenant-Governor might nominate for his assistance in making laws and regulations.

CHAPTER II.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, AND SANITATION.

Local Self-Government, Municipalities, and Sanitation.

In every province of India a great deal of local business is done, considerable funds are raised and spent, and valuable service to the public is performed, by local bodies, which are constituted and exercise their functions under different enactments. Municipal committees exist in most towns of the Indian Empire, and have charge of municipal business generally, including the care and superintendence of streets, roads, water supply, education, and hospitals. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, schools, hospitals, and dispensaries in rural districts. Bodies of port trustees have charge of harbour works, port approaches, and pilotage. There are, besides, less numerous local bodies discharging similar duties in towns other than constituted municipalities, and in cantonments. The importance of the work of local administration performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1897–98, apart from loans, sales of securities, and such-like extraordinary receipts, was Rx. 3,879,000. The sources of this income and the yield of each source are shown in the table on the last page of this chapter. The revenue enjoyed by the local and district boards during the year was, approximately, Rx. 4,649,000, inclusive of grants and transfers from provincial revenues. Of this total, the local rates levied on land, "for expenditure on roads, schools, hospitals, and general purposes," gave a gross yield of about Rx. 3,056,000; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, the rent of corporate property, and the grants made by Government for educational and medical purposes.

The income of the port funds, under the management of port trustees and local bodies, exclusive of loans, amounted in 1897–98 to Rx. 1,505,000.

The revenue of cantonment funds amounted to Rx. 228,000; that of town and bazaar funds came to Rx. 91,000; that of miscellaneous funds was Rx. 190,000.

Thus, the revenue from all sources managed by the various local bodies amounted in 1897–98 to about Rx. 10,542,000; of which total about one-third is shown in the accounts of the Government of India and in the financial section of this Statement.

MUNICIPALITIES.

Municipalities. General.

Throughout India the cities and larger towns manage their own local affairs, through the agency of commissioners or committees appointed from among the citizens. The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province, and of the three presidency capitals, Bombay, Calcutta, and Madras. In most places the majority of the commissioners or committees are elected by the townsfolk under legal rules, but in every town some, and in a few minor towns all the members, are appointed by the Government. In almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

The sources of municipal revenue are, mainly,—

- House tax,
- Tax on rent,
- Octroi duties,
- Bazaar or market rents,
- Carriage tax,
- Water rates,
- Conservancy rates,
- Rents of public lands and properties,
- Public gardens and parks.

MUNICIPALITIES.

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation, and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the commissioners or committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, is not keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases.

Progress of local self-government

In an appendix to last year's (the thirty-third) number of this Statement will be found a copy of papers recently published by the Government of India, reviewing the progress of municipal and local self-government during the past nine or ten years. The progress of the municipalities and the working of district boards and councils in the several provinces are separately treated.

Bengal. Calcutta.

The Calcutta Municipality consists of 75 commissioners, of whom 50 are elected and 25 nominated. The triennial elections were held at the end of the year, and resulted in the re-election of 38 out of the 50 commissioners. There were 13 contested elections in the 25 wards, in which the number of votes given varied from 31 to 90 per cent. of the voters on the list. Of the newly elected commissioners, 36 were Hindoos, six were Moslems, and six were Europeans. The executive consists of a general committee of 18, seven standing committees, and a number of special committees, which are appointed as occasion arises. The corporation and its committees held 241 meetings during the year, as compared with 248 in the previous year, at which the average attendance of elected commissioners was 52 per cent., as compared with 50 per cent. in 1896-97. The income of the municipality during the year was Rx. 475,000, or slightly less than in 1896-97; the chief items being rates, Rx. 365,000, and taxes on professions, &c., Rx. 53,000. The incidence of municipal taxation on the population of the town was $6\frac{15}{16}$ rupees per head. The total assessment of the town was increased during the year to Rx. 2,085,000. The percentage of collections to the total demand was 82 per cent., against 84 per cent. in the previous year. The expenditure of the year out of revenue was Rx. 485,000, besides loan money spent on permanent improvements. This was the third successive year in which the commissioners had to draw on cash balances for expenditure on revenue account. The total debt of the city is Rx. 2,677,000, against which may be set reserve fund investments of Rx. 214,000. A fresh loan of Rx. 200,000 was floated during the year, but, owing to the unfavourable state of the market, only Rx. 148,000 was subscribed. The total charges for interest on loans were Rx. 119,000, besides Rx. 51,000 set apart during the year for the repayment of loans; the Calcutta 4 per cent. municipal stock stands above par in the market. The amount spent on improvements in the suburbs was Rx. 4,000, which, added to the charge for interest on previous expenditure, brought the total expended during the year slightly above the three lakhs which the corporation are required under the Calcutta Municipality Act of 1888 to spend on suburban improvements. During the nine years since the passing of the Act, Rx. 283,000 has been so spent, the statutory obligation being Rx. 270,000.

Among the more important matters that came before the Calcutta Municipality during the year were the new drainage works, electric tramways, the disposal of the sewage of Fort William, the grant of land for the Bhowanipur Hospital, and the preventive measures against the plague. The average daily supply of filtered water during the year was $20\frac{3}{5}$ million gallons, or a decrease of 150,000 gallons as compared with the previous year. The daily supply of unfiltered water for street-cleaning purposes was $5\frac{1}{4}$ million gallons as compared with $5\frac{1}{2}$ millions in 1896-97. Schemes for extending the sewerage to the suburbs were in hand. The death rate rose from $35\frac{1}{2}$ to 36 per

thousand, while the birth rate was 18½ as in the previous year, the highest ever recorded in Calcutta. MUNICIPALITIES.

As described in last year's statement, proposals were made to amend the law so as to give more scope to the executive officers of the city, so as to secure adequate representation for trade and mercantile interests, and so as to reserve to the Government power to appoint the chief officers of the city in the sanitary and other departments. A Bill to this end was laid before the Bengal Council in 1898.

In the interior of Bengal there were 151 municipalities, or one more than in the previous year. The population living within municipal limits was 2,722,000 persons, or 3¾ per cent. of the whole population of Bengal, excluding Calcutta. The number of ratepayers entitled to vote at municipal elections was 469,000, or about one in six of the municipal population. The municipalities varied in size, from Patna with 168,000, to Nalchiti with 1,675 inhabitants; the majority, however, had populations of between 5,000 and 15,000 inhabitants. In all but 27 of the municipalities two-thirds of the commissioners are elected by the ratepayers; in the rest the Government, in consequence either of the backwardness of the locality or of the intensity of party feeling, exercises the power of nomination. Several general elections under the municipal law took place during the year, rendered necessary in most cases by irregularities which occurred in the general elections of 1896–97. Contested elections were frequent, and the percentage of voters fairly high. Of the 2,183 commissioners there were 1,171 elected and 1,012 nominated, 349 officials and 1,834 non-officials, 1,949 Indians, and 234 Europeans. Among the non-official commissioners were included 513 landholders, 516 pleaders and law agents, 236 merchants and money-lenders, 69 private schoolmasters, and 129 medical practitioners. Bengal. Interior of province.

The number of meetings held during the year was 2,609, against 2,674 in the preceding year; 39 municipalities held more than 20 meetings each, while 15 failed to hold the prescribed minimum of 12 meetings. The attendance at meetings was higher than in last year; in 102 towns, as compared with 78 in the previous year, the attendance was, on the average, more than 50 per cent. of the members. The average incidence of municipal taxation rose from 15 to 15⅔ annas per head of the population; and ranged from 5½ rupees in Darjeeling to 3⅔ annas in a small town of the Midnapur district; in 39 towns the incidence exceeded one rupee per head; in 53 towns the incidence was less than half a rupee (eightpence) per head. Exclusive of loans and extraordinary receipts, the total income was Rx. 330,000, of which Rx. 267,900 came from municipal taxation; and Rx. 24,500 were borrowed during the year. The total expenditure was Rx. 360,000. The chief heads of outlay were, public safety (fire establishments, lighting, police, &c.), Rx. 28,200; water supply and drainage, Rx. 37,600; conservancy, Rx. 106,800; hospitals, dispensaries, and vaccination, Rx. 36,200; buildings and roads, Rx. 50,400. The chief water-supply works of the year were at Maniktola, Cossipore, and Berhampur, but the capital expenditure under this head was much reduced, owing to the completion of the Howrah and Bhagalpur schemes. Smaller sums were spent in other towns on new water supplies, and private individuals have in many cases contributed the necessary funds. There was also a decline in the capital expenditure on drainage works, except in Serampore and Jamalpur. Schemes were under consideration for Cossipore and Maniktola, and the Krishnagar scheme was adopted. The Howrah drainage project, which was to cost Rx. 676,000 capital outlay, and working charges of Rx. 41,500 has been found too costly; but it is hoped that something may be done there.

The number of municipalities in the North-West Provinces and Oudh was 104, as in the previous year. In all but six of these towns the majority of the members of municipal boards are elected by the ratepayers, who amount to nearly 2 per cent. of the municipal population of 3,267,000. In seven towns the population exceeds 100,000 souls. Elections were contested in 62 municipalities during the year. In some towns, including Saharanpur, considerable interest was shown in these contests. In 98 towns North-West Provinces and Oudh.

MUNICIPALITIES.

the municipal boards elected their own chairman, and in ten cases they chose non-officials. The total number of municipal members was 1,608, divided thus:—

Elected - -	1,229	Non-officials -	1,293	Indians - -	1,403
Nominated and *ex-officio*	381	Officials - -	315	Europeans - -	205

Each municipality held, on the average, 20 general meetings in the year; 7 of the smaller committees held less than the prescribed minimum of 12 meetings in the year. For all the municipalities of the province the average attendance of members at each meeting increased from 47 to 64 per cent.; in four towns the average attendance at each meeting exceeded 70 per cent., and in four it fell below 40 per cent. of the total members. In respect of number of meetings and attendance the year's results were better than those of 1896-97.

The chief source of municipal taxation was the octroi duty, which was in force in 80 towns, and yielded a net income of Rx. 236,000, which was 73 per cent. of the taxation; Rx. 125,800 accrued from rents and miscellaneous sources. The incidence of income from taxation was 15½ annas per head of the municipal population. The highest incidence was 5¾ rupees a head at the hill stations of Mussoorie and Naini Tal; and the highest incidence at any town in the plains was 1⅞ rupees at Agra. The total municipal income of the year was Rx. 448,000, including Rx. 32,000 under the head of debt. No public loans were raised. Of the expenditure, 50 per cent. was devoted to conservancy, hospitals, water supply, drainage, streets, roads, public works, and other objects for promoting the public health and convenience; 3½ per cent. was spent on education, 15½ per cent. on police, lighting, and fire establishments. The outlay on water supply was Rx. 52,800; on drainage, Rx. 18,100; and on conservancy, Rx. 99,000.

The towns which spent most on water supply and drainage during the year were Agra, Rx. 16,300; Naini Tal, Rx. 11,900; Allahabad, Rx. 10,200.

In Agra the daily supply of filtered water was 1,338,000 gallons, or about 8 gallons per head. Both there and at Allahabad the supply was less than in 1896–97, owing to special causes. In Allahabad the cost per 1,000 gallons was 4½ annas, slightly less than at Agra. In Benares the daily average supply of filtered water rose from 8⅓ to 9 gallons per head, and the cost of the supply was about 3¾ annas per 1,000 gallons. In Cawnpore the supply was about 8 gallons per head, at a cost of 2¼ annas per 1,000 gallons. The only large sewerage works in progress were at Benares, where Rx. 9,000 worth of work was done during the year. Measures were taken in nearly all the municipalities to prevent the spread of the plague, and the sanitary condition of many places is reported to be exceptionally good.

The number of municipalities in the Punjab was, as in the previous year, 148 in all, containing a population of 2,120,000, besides 30 small towns, which had a modified form of municipal administration without being constituted as municipalities. On 110 municipal committees two-thirds or more of the members are chosen by the ratepayers; in 37 towns all the members are nominated; in one town the municipal fund was administered by the district officer. In two towns the power of electing a president had to be withdrawn from the committees, owing to mismanagement of the funds. The total number of members on all the committees was 1,671, divided thus:—

Non-official - - - -	1,348	Indians - - - -	1,546
Official - - - -	323	Europeans or Eurasians - -	125
Elected - - - -	815	Nominated and *ex-officio* -	856

njab.

The number of vacancies to be filled during the year was 296, of which 122 were filled after contested elections. In many towns elections were keenly contested; the number of electors appearing at the polls averaged 56 per cent. of the constituents, as compared with 67 per cent. in 1896–97.

Six municipal committees held 30 or more meetings a-piece during the year, and but 45 committees failed to hold the prescribed minimum of 12 meetings.

MUNICIPALITIES.

The working of the committees in the larger towns throughout the province is reported to be fairly good; in some cases the proceedings of committees have been remitted for reconsideration or overruled. The Amritsar committee does its work zealously and usefully, as in previous years.

The chief municipal tax was the octroi, which yielded Rx. 291,000, which though higher than the figure for the famine year 1896–97, was not equal to that of 1895-96, while the other taxes produced Rx. 23,000, of which Rx. 14,000 was levied in Simla; the incidence of the total revenue from taxation was 1·29 rupees per-head of the population. The total municipal income of the year from all sources was Rx. 446,000, of which Rx. 13,000 was from loans. The expenditure was Rx. 440,000, out of which Rx. 16,700 were spent on water supply, Rx. 13,700 on drainage, Rx. 61,000 on conservancy, Rx. 42,000 on hospitals and vaccination, Rx. 35,000 on buildings and roads, Rx. 56,000 on schools, Rx. 10,200 on repayment of loans, and Rx. 66,000 on police, fire-engines and street lighting. The net amount of debt outstanding against all municipalities was Rx. 367,000; and the yearly charge for interest was Rx. 16,000. The year was on the whole a healthy one in all towns throughout the province.

Burma. Rangoon.

The town of Rangoon contains a population of 215,000, and its municipal affairs are managed by a committee, composed of 17 elected and seven nominated members, with a salaried president. No elections took place during the year. Thirteen of the members were Europeans or Eurasians, and eleven were Asiatics; 21 were non-officials, and three, including the president, were officials. Sixteen general meetings and 68 sub-committee meetings were held during the year; the attendance at the general meetings averaged 56 per cent. of the whole strength. The total receipts of the municipality were Rx. 306,000, out of which Rx. 111,400 accrued from rates (general, water, lighting, and scavenging) on houses and lands; Rx. 73,000 from the proceeds and rents of municipal properties; Rx. 10,600 from provincial funds; and Rx. 54,000 on account of various loans. The year was prosperous and most sources of income showed a moderate increase. The expenditure of the year amounted to Rx. 283,000, of which Rx. 18,200 were spent on waterworks and drainage, Rx. 29,000 on conservancy, Rx. 20,700 on hospitals and vaccination, Rx. 43,200 on buildings and roads, Rx. 25,000 on reclamation of swamps, Rx. 6,800 on education, and Rx. 49,100 on the interest (Rx. 19,700) repayment (Rx. 19,600), &c. of loans. The net outstanding debt of the municipality at the end of the year was Rx. 402,000. The pneumatic sewage system worked well during the year, and is being gradually extended to other sections of the town. The ejectors disposed of 861 million gallons of sewage during the year at a cost of $1\frac{7}{12}$ annas per thousand gallons. The births registered during the year give a birth-rate of 17·61 per mille, or somewhat lower than in the preceding year; the death-rate was 32·1 per mille, against 31·3 and 28·5 in the two preceding years, for the whole town.

Burma. Interior of Province.

The number of municipalities in Burma outside Rangoon was 41, as in the previous year, and they contained a total population of 644,000. In seven of these towns a majority of the municipal members are elected by the ratepayers, in the remaining towns all the members hold their position either *ex-officio* or by nomination. The decision in the case of each municipality, as to whether the method of election or that of nomination shall be adopted, rests with the local government. It is in contemplation to introduce the elective system into Mandalay. There are in all 516 members on the several municipal committees, divided thus:—

Elected - -	70	Non-officials -	332	Asiatics - -	371
Ex-officio and nominated.	446	Officials - -	184	Europeans -	145

The elections held in several municipalities aroused little or no interest. Two towns held less than 12 meetings in the year; the average attendance at

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each meeting ranged from 35 to 90 per cent. of the members; in eight towns only was the average attendance below half the total strength of the committee, and in some of these a good amount of work was done on sub-committees.

The chief sources of municipal taxation are the rates on the annual value of houses and lands, yielding Rx. 46,000 out of a total income from taxation of Rx. 71,000; ferry tolls yielded Rx. 9,900, and conservancy rates Rx. 5,900 The other chief sources of municipal revenue were municipal property, chiefly bazaar rents, Rx. 113,600; provincial and other grants and contributions Rx. 3,900. The total income of the year, apart from loans and debt account, was Rx. 192,800, which exceeds that of 1896–97 by 8½ per cent., owing largely to increased receipts from markets and slaughter-houses. The total expenditure of the year was Rx. 178,900, of which the chief items were Rx. 32,700 on conservancy; Rx. 21,200 on hospitals and dispensaries; Rx. 14,700 on markets and slaughter-houses; Rx. 46,500 on streets and roads; Rx. 7,400 on education; and Rx. 1,500 on water supply. Rangoon, Mandalay, Moulmein, Bassein, Akyab, and Prome are the only towns in Burma that have a municipal income of over Rx. 10,000. The average incidence of municipal taxation outside Rangoon was 20 annas a head in Lower and 15 annas per head in Upper Burma. No money was borrowed by any town during the year; Rx. 3,900 were repaid towards outstanding loans, and the interest due on all loans during the year was Rx. 1,100; the outstanding loans of all towns amounted to Rx. 18,300 at the end of the year. Besides municipalities there are seven other places in Lower Burma where town funds are raised, the amount during the year being Rx. 10,600, and are managed by committees nominated from among the townsfolk. Expenditure does not keep up with income in these towns, and a balance of Rx. 7,300 has been accumulated.

Central Provinces.

The number of municipalities in the Central Provinces was 53, as in the preceding year. A majority of the members of all committees, except that at the hill resort of Pachmarhi, are elected; out of 623 members on all committees, 445 were elected, and 178 were nominated, or *ex-officio*; 145 were officials, and 478 non-officials; 58 were Europeans, and 565 were Natives of India. There were general elections in 28 of the municipalities, many of them having been postponed in the previous year on account of the prevailing distress. The total municipal receipts of the year were Rx. 149,600, of which Rx. 80,900 accrued from octroi duties, and Rx. 10,400 from loans. The total income, apart from loans, was Rx. 13,700 above similar receipts in the previous year. The total municipal expenditure was Rx. 153,100, or Rx. 10,900 less than in the preceding year. The expenditure on waterworks was Rx. 12,900, or Rx. 10,200 less than in 1896–97, the decrease occurring chiefly on the Khundwa water works; on conservancy Rx. 27,000; on schools and colleges Rx. 12,200; on streets and roads Rx. 6,700; and on dispensaries, hospitals, and vaccination, Rx. 8,100. The refund of octroi duty accounts for Rx. 21,100, as compared with Rx. 17,000 in the previous year; the net octroi receipts were therefore Rx. 59,800, against Rx. 52,300 in 1896–97. These figures show an increase both in the through traffic and in the consumption of dutiable articles.

When reviewing the work of the municipalities, the local government says, "The Municipal Committees appear to have worked well on the whole "during the year, but there can be no doubt that the efficiency of a committee "is in many cases due to one or two energetic members who take a keen "interest in municipal affairs."

Assam.

The number of municipal bodies in Assam was 14, as in the preceding year; of these, three were first-class, and six were second-class municipalities, two were stations, and three were unions. In only one town, Sylhet, does the population exceed 10,000; in six of the larger places the majority of the members are elected. In all the 14 towns the members are divided thus: nominated 90, elected 52, total 142, of whom 92 were non-officials and 50 officials, 113 were Natives of India and 29 Europeans. The total income of the 14 towns increased from Rx. 20,700, to Rx. 25,200 of which Rx. 9,000 accrued from taxation. The two chief items of taxation were Rx. 4,300 from

rates on houses and lands, and Rx. 1,700 from tolls on roads and ferries. Among the other receipts, the larger items were Rx. 7,700 from grants by the Provincial Government including Rx. 4,000 in consequence of the earthquake, and Rx. 2,300 from markets and slaughter-houses. The incidence of municipal taxation was $1\frac{1}{16}$ rupees per head of the population, ranging from $2\frac{1}{8}$ rupees at Shillong and 2 rupees at Gauhati to $6\frac{1}{2}$ annas per head at Golaghat. The total expenditure was Rx. 23,300, of which the chief items were Rx. 6,600 on conservancy and drainage; Rx. 3,600 on water supply, and Rx. 5,900 on roads and buildings. MUNICIPALITIES.

For the municipality of Madras there are 33 members, of whom 24 are elected by 5,720 ratepayers. There were during the year 15 vacancies, of which 10 were contested; at these an average of 49 per cent. of the registered electors recorded their votes. The names on the roll of qualified voters represent 12·5 per mille of the total inhabitants of the city. At 20 meetings of the Commissioners the average attendance of members was 23, or about 70 per cent. of the total number of members; ten members attended less than 10 meetings during the year; and two members lost their seats by absenting themselves from three consecutive general meetings, one of them doing so a second time after reinstatement. The total income of the year, apart from loans and Government contributions, was Rx. 136,000, or Rx. 14,000 more than in the preceding year; of the year's total, Rx. 103,000 accrued from taxation, which fell on the population at the rate of 2·27 rupees per head; the principal tax is one of 10 per cent. on houses and lands. No new tax was imposed during the year. The Government contributions fell from Rx. 18,300 to Rx. 3,000; last year's contributions had included special grants of Rx. 15,000 towards the new drainage scheme. A loan of one lakh was raised during the year for the new market which is in course of construction. The total expenditure came to Rx. 170,000, of which Rx. 49,500 were spent on water supply and drainage; Rx. 38,300 on hospitals, sanitation and conservancy; Rx. 30,200 on streets, roads, and other public works; and Rx. 20,600 on the interest for and repayment of debt. The balance was reduced by Rx. 17,400. An estimate for the new water supply scheme has been submitted; and new drainage works are making progress. The quantity of water supplied was 29,000 cubic feet more than in 1896–97. The number of small-pox vaccinations rose from 27,000 to 33,000, being an increase of 18 per cent., due to an epidemic of the disease in the latter part of the year. The registered municipal death-rate, calculated on the census of 1891, was 35·5 per mille, against 37·8 in 1896, and 41 in 1893. The mean of the previous decade was 39·7. Food prices were high, especially in the latter part of the year, when a great rise occurred. A case of plague was imported into the city from Poona. Another fatal case occurred from direct inoculation at the post mortem. Rigorous measures were taken, and no outbreak ensued. The outstanding debt of the municipality amounts to Rx. 337,000, against which must be set the sinking fund, which now amounts to Rx. 122,000. The payments to the sinking fund during the year were Rx. 6,800, and the charge for interest was Rx. 15,100. Madras. Madras City.

The number of municipalities in the interior of Madras was 58, as in the previous year. The councils were partly elective in 34 of these towns, 3 per cent. of the population being registered as voters. The privilege of election was also extended to 22 other towns, but was not exercised during the year. In 39 towns the councillors elected their own chairman. On an average 29 meetings were held by each council. The average attendance of councillors at meetings was 8·8, as compared with 9 in the previous year. There are 868 municipal councillors in all, divided thus:— Interior of the Madras Presidency.

Elected - -	367	Non-officials -	676	Indians - -	727
Nominated -	501	Officials - -	192	Europeans and Eurasians -	141

There was a decrease of 9 per cent. in the total municipal income, which came to Rx. 292,000; of this, Rx. 153,000 came from taxation, the chief items being Rx. 71,000 from rates on lands and houses, Rx. 35,900 from tolls; and the

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average incidence of taxation was 14½ annas per head of the population. The chief sources of miscellaneous receipts were fees and revenue from markets and slaughter-houses, Rx. 18,900, and grants from Government, local funds, and other sources, Rx. 41,800. The total expenditure of the year was Rx. 350,300, of which the chief items were public works, Rx. 104,000, including drainage and water supply, Rx. 56,600; education, Rx. 34,300; medical services and sanitation, Rx. 101,700, including Rx. 66,800 spent on conservancy; lighting and miscellaneous purposes, Rx. 25,800. The outstanding public debt of all municipalities was Rx. 150,400. Loans raised during the year amounted to Rx. 11,800. Water supply schemes were completed during the year at the towns of Conjeveram, and Kurnool, and were in progress at the towns of Coconada, Tirupati, and Vizagapatam.

Bombay. Bombay City.

The Municipality of Bombay is administered by a corporation consisting of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. Eighteen of the members were Europeans, and the rest were Indians; among the latter 16 were Hindoos, 24 were Parsees, and 12 were Mahomadans.

Plague was epidemic in Bombay to a greater or less degree throughout the year, and had a disastrous effect on the trade of the city and on the municipal expenditure; a considerable proportion of the inhabitants, though not so many as in the first epidemic, fled from the city, and business of all kinds was greatly hindered. The total income of the municipality, exclusive of loans, was Rx. 715,000, or Rx. 93,000 more than in the previous year; of this total, Rx. 576,000 accrued from municipal taxation and market receipts, Rx. 44,000 is due to an adjustment for plague expenses incurred out of revenue in 1896–97, the balance being contributions from Government and receipts from other property. The chief items of revenue were the general tax, which yielded Rx. 206,000, the water tax, which yielded Rx. 133,000, and the town duties, which yielded Rx. 95,000. The general tax and town duties both showed a satisfactory recovery, and there was a good increase, from Rx. 24,000 to Rx. 35,000 under wheel tax. No new tax was imposed, and no rate was enhanced during the year. The total expenditure of the year came to Rx. 1,041,000, of which Rx. 291,000 were from borrowed money. The chief items of outlay from current revenue were Rx. 159,000 on the public health department, Rx. 50,000 on operations against plague, Rx. 147,000 on streets and other public works, and Rx. 226,000 on the interest and sinking fund of the city debt. Of the expenditure from loan funds, which amounted to Rx. 312,000, the largest items were Rx. 49,000 for sewerage works, Rx. 43,000 for minor sanitary works, and Rx. 198,000 for plague expenses. The quantity of water in the storage lakes was abundant; the consumption for domestic purposes was, as usual, high, and a large quantity was used for flushing drains in connection with plague operations. The death-rate of the year in Bombay was 58·28 per mille, against 40·71 in the previous year, and 30·64 the average of the five years 1891 to 1895. Of the excess mortality, the greater part occurred in the months of January, February, and March. Deaths from plague were reported to have been 2,110 in January 1897, 3,349 in February, 2,424 in March, and 1,309 in April; they then sank to a low figure, but rose again in December to 643. The highest mortality from plague occurred in the suburbs, the death rate from that cause being 35·99 per mille in Mahim, while the highest number of deaths, 919, occurred in Byculla. Cholera was also prevalent during the year. The outstanding debt of the city at the end of the year was Rx. 4,112,000, against which may be set Rx. 546,000 invested in behalf of sinking and other funds belonging to the municipality. In consequence of the plague expenses and the inability to raise the intended permanent loans for drainage and other works, temporary loans amounting to 35 lakhs were raised from the Bank of Bombay.

Interior of the Bombay Presidency.

The total number of municipalities in the interior of Bombay was 167, or one less than in the previous year. The population within municipal limits was 2,245,000, besides the population of Bombay city. The total number of municipal commissioners in these towns was 2,343.

The constitution of the committees was much the same as in the preceding year, namely :— MUNICIPALITIES.

Elected - 908	Officials - - 530	Asiatics - 2.164
Nominated - 1,435	Non-officials - 1,710	Europeans - 175

Everywhere the requisite number of quarterly meetings was held; and in many towns the number of meetings was considerable; Ahmedabad again headed the list with 55 meetings in the year. The attendance was not quite so good as in the previous year; but in most towns the average attendance of members exceeded one-half the total strength of the committee. The income of the municipalities, excluding loans, was Rx. 580,000, as compared with Rx. 500,000 in the preceding year. The incidence of municipal taxation ranged from $13\frac{1}{4}$ annas per head in the southern division to 40 annas per head of the municipal population in Sind. Rx. 203,000 of the taxation was raised by octroi duties, and Rx. 147,000 by other taxes. There were no changes in the systems of urban taxation; and the increase of municipal revenues, especially in the octroi receipts was due to the recovery from the famine of the previous year. The total expenditure was Rx. 672,000. The outlay on water supply, roads, and drainage fell from Rx. 324,000 to Rx. 274,000, expenditure on these heads being curtailed to set free funds for plague operations, on which in the Northern and Central divisions alone, $5\frac{1}{2}$ lakhs were spent during the year. The expenditure on conservancy was Rx. 128,000. Water supply works and improvements were prosecuted during the year at Sukkur, Karachi, Hyderabad, Jacobadad, Yeola, and Ahmedabad; drainage works were being prosecuted at Karachi and Sukkur, and on a smaller scale elsewhere, while extensive drainage schemes are in contemplation for Poona, Ahmedabad, and Sholapur.

The number of municipalities in Berar was 12, as in the previous year, and in eight of these towns the majority of the municipal committees are elected by the ratepayers. There were altogether 177 members of these committees, at the end of the year, divided thus:— Berar.

Elected - 95	Non-officials - 119	Asiatics - 148
Nominated - 82	Officials - - 58	Europeans - 29

The proportion of municipal electors to the total population of the municipalities according to the last census, is $2\frac{4}{5}$ per cent. In eight municipalities there occurred 34 vacancies, for which 70 candidates presented themselves. Out of 4,923 registered voters, 1,135, or only 23 per cent. of the electors, recorded their votes; and the proportion of voters going to the poll ranged from none to 59 per cent. in the different towns. Only one committee held less than 15 meetings during the year, and five committees held 20 or more meetings; the average proportion of members present at a meeting was about the same as last year and exceeded one half for all municipalities except one. The total income of the municipalities was Rx. 27,500, of which Rx. 5,400 accrued from markets, Rx. 4,800 from taxes on trades and professions, Rx. 2,000 from water-rates, Rx. 2,100 from conservancy tax, and Rx. 3,500 from other municipal property. Municipal income, apart from loans and grants, ranged from $10\frac{2}{3}$ annas at Akot to $2\frac{1}{3}$ rupees per head of the population in Buldana. Taxation, apart from other income, ranged from $3\frac{1}{12}$ annas per head in Karinja to $22\frac{3}{4}$ annas per head of the population in Buldana. The total expenditure was Rx. 29,000, of which Rx. 5,500 were spent on water supply, Rx. 7,500 on drainage and conservancy, Rx. 1,200 on markets, Rx. 2,600 on buildings and roads, Rx. 2,900 on public instruction, Rx. 1,100 on famine relief, Rx. 1,700 on repayment of loans, and Rx. 2,000 on general administration charges. Eleven out of the 12 municipalities contribute towards schools or colleges, and six towards libraries; only five spent more than Rx. 100 on water supply. Sanction for new taxation has been obtained or applied for by six committees since the commencement of 1897–98.

DISTRICT BOARDS.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; but in most provinces district committees had for many years given assistance or DISTRICT BOARDS. General.

DISTRICT BOARDS.

exercised control in the administration of local roads, local hospitals, and local schools. In all the more advanced provinces district boards are now constituted under different enactments. In Madras, the boards have the power of proposing local taxation, and in Bengal they are empowered to decide at what rate, within the legal maximum, the road cess shall be levied in each district; but for the most part the district boards do not possess powers of taxation; they administer funds, or the yield of specific imposts, made over to them for expenditure on roads, schools, hospitals, and sanitation, within their jurisdiction. In most provinces the district boards delegate much of their detailed work to sub-divisional, or minor boards, which are constituted under the law, and are responsible for subdivisions or parts of a district. A review by the Government of India on the working of District Boards in India during the past nine years will be found in the Appendix to last year's Statement.

Bengal.

In Bengal there were 38 district boards and 104 local boards, as in the previous year. On the district boards were 794 members, of whom 328 were elected by the local boards; on the local boards were 1,253 members, of whom 413 were elected. Out of the total number of 2,047 members, 1,635 were non-officials and 1,761 were Indians. On the district and local boards sat 921 landholders and planters, and 505 lawyers; these two classes thus composed 87 per cent. of the non-official members. During the year general elections for the local boards were held in only one sub-division. In the year 1897-98 each district board held on the average 15 meetings. The average attendance at each meeting was 10·7 members, or rather less than in the preceding year. The local boards held a few more meetings than in 1896-97; but the average attendance was only five members, as compared with nearly six in 1896-97, which showed that less interest was taken in the work. The number of meetings that had to be adjourned for lack of a quorum was 61 for district and 202 for local boards.

The Bengal boards enjoyed during the year an income of Rx. 711,000, of which the largest items were road cess, Rx. 392,000; contributions from provincial funds, Rx. 54,000; cattle pound fees, Rx. 47,000; receipts from ferries and other similar sources, Rx. 122,000; and loans, Rx. 53,000. The expenditure of the year was Rx. 691,000, of which the chief items were roads, bridges, and waterways, Rx. 379,000; education, Rx. 120,000; hospitals, &c., Rx. 30,000; and famine relief, Rx. 19,000. The expenditure on sanitary improvements rose from Rx. 18,600 to Rx. 26,000, of which Rx. 22,000 were spent on water supply.

North-West Provinces and Oudh.

In the North-West Provinces and Oudh there were four district committees and 44 district boards, as in the previous year. The boards consisted of 1,538 members, who were divided as follows:—

Elected - -	1,245	Indians - -	1,475
Nominated -	293	Europeans -	63

The Committees had 82 members, either *ex-officio* or nominated, of whom 17 were Europeans. The district boards held on an average 11 meetings each, the average of the district committees being 8. The average attendance at meetings was 11 members at the Boards and 9 members at the Committees.

During the year the financial system was assimilated to that generally obtaining in other Provinces, separate funds being opened for each board and committee, in place of the old system under which the boards administered funds placed at their disposal in the departmental budget, and had no recognised separate balance. They will now be able to carry forward any balance that accrues on the transactions of the year through economy or improved receipts. Opening balances, amounting to four lakhs of rupees, were made over to them by the Local Government, and arrangements for contributions to their funds by Government were determined according to the financial position of each board.

The income of the boards during 1897-98 was Rx. 395,000, of which Rx. 280,000 came from taxes; the expenditure was Rx. 397,000, including Rx. 132,000 on education, Rx. 202,000 on drainage, waterworks, buildings, and

roads, and Rx. 55,000 on medical services and sanitation. The net contribution from the local government was Rx. 8,000. DISTRICT BOARDS.

The work of the boards during the year is reported to have been on the whole satisfactory, many members having taken a commendable interest in local administration, at the cost of much time and personal convenience. It is expected that the newly granted financial independence will stimulate increased activity among members.

In every district of the Punjab except Simla there was a district board constituted under Act XX. of 1883; in most districts there were subordinate local boards acting under the district boards; in two districts these local boards were abolished during the year. In 12 districts, most of which are situate on or near the frontier, the district boards are composed entirely of nominated members, and in other 16 districts the members are in part nominated or *ex officio*, and in part are elected delegates from the local boards. Of the 66 local boards 11 are filled up wholly by nomination, and 55 partly by nomination and partly by election. Out of a total of 2,494 members the number of elected members in the whole province was 1,153, and of nominated members 1,341. The number of non-officials on the boards was 2,154, and the officials were 340. Elections to the local boards were held in 11 districts during the year; out of 230 vacant seats, concerning which returns are given, 30 were contested; little or no interest is reported to have been taken in the elections. Eleven out of the 31 district boards held less than four meetings during the year, which is the minimum number of meetings required by the rules; in 15 districts the average attendance at meetings of the district boards was more than half the number of members. Of the 66 local boards only 15 held the prescribed number of six or more meetings, while five local boards held no meetings at all; in 24 of the local boards the average attendance of members exceeded half of the whole strength; the attendance was thus less regular than in the previous year. The local officers again report that the district boards have on the whole worked satisfactorily. The local boards have, save in a few districts, been of little use. There is rarely sufficient work to keep both district and local boards employed. Punjab.

Excluding suspense items, the year's income of all the boards came to Rx. 312,300, of which the chief items were Rx. 240,700 from local rates, Rx. 27,700 from civil works, and Rx. 9,800 from school fees. The total expenditure of the year was Rx. 311,300, of which the chief items were:—education, Rx. 66,500; hospitals, vaccination, and other medical or sanitary charges, Rx. 40,300; and roads and other public works, Rx. 85,700. Of the last-mentioned grant, Rx. 16,000 was spent on water supply and sanitation. No district or local board has contracted any debt. The credit balance fell from Rx. 64,600 to Rx. 63,400.

In every district of the Central Provinces except the backward tract of Mandla, district councils and local boards, subordinate to those councils, have been established. There are 17 district councils and 53 local boards. The total number of members on these bodies was 1,197, divided thus:— Central Provinces.

Elected members -	913	Non-officials	1,054	Asiatics - -	1,162
Nominated or *ex officio* - -	284	Officials -	143	Europeans or Eurasians -	35

A fair amount of interest was taken in the Balaghat general election held during the year, but the interest in bye-elections is usually not great. The number of meetings held was 440, as compared with 456 in the previous year. Of 280 officials the average attendance was 97, or 35 per cent., and of 1,054 non-officials the average attendance was 342, or 33 per cent. The maintenance and construction of metalled roads is undertaken by the Provincial Public Works Department in behalf of the councils, which, however, advise upon road projects within their jurisdiction. A number of roads were made as famine relief works, and the maintenance of them, or their completion, will come as a charge on local funds. Education is one of the most important matters with which the councils deal; they have charge of all primary and many middle schools, and they administer the grant-in-aid funds available for rural schools. The income of the councils and boards was Rx. 87,300, of which Rx. 37,600

DISTRICT BOARDS. were yielded by local rates, Rx. 19,500 by cattle-pound fees, and Rx. 14,000 by contributions from provincial funds. The main items of their expenditure, which amounted to Rx. 80,300, were Rx. 19,400 on roads and other works, Rx. 28,900 on schools, and Rx. 8,700 on hospitals and sanitation.

Assam. In Assam there are 19 local boards, constituted under the Assam Local Rates Regulation of 1879. The total number of members on the district boards was 375, of whom 69 were officials and 306 non-officials; 137 were elected, and 234 were natives of India. The boards enjoyed for the year 1897–98 an income of Rx. 127,000, or rather more than in the previous year. The local rates yielded Rx. 64,600, or Rx. 800 above their yield in 1896–97. The boards spent Rx. 112,300; 64 per cent. of the total expenditure was devoted to public works, 18 per cent. to education, and 8 per cent. to sanitary and medical objects. The outlay on village sanitation was Rx. 6,600.

Madras. In Madras there were 21 district boards, with not less than 24 members on each, of whom one-half are elected by taluk or subdivisional boards except in the Nilgiris. The members of 80 taluk boards are appointed by Government from the residents and ratepayers of the taluk. On all the boards there were 1,769 members, of whom 1,257 were non-officials and 512 were officials; out of the latter number 67 were members elected by taluk boards to be their representatives on the district boards. Below the taluk boards were 376 village unions, which were occupied chiefly with local sanitation and the management of elementary schools, markets, and other local institutions entrusted to them by the taluk boards. The district boards held 237 meetings, at which the average attendance was 17 (12 non-officials and five officials), as compared with 16 in the previous year, out of an average strength of 31 members. The taluk boards held 1,034 meetings, at which the average attendance was eight members (six non-officials and two officials), out of an average strength of 14 on each board. The village unions held 4,938 meetings, or 24 less than in the previous year. The Local Government considered that the administration of local affairs was on the whole efficient, except in four districts, though the development of vaccination was not satisfactory.

The income of all the boards during the year was Rx. 842,900, or Rx. 20,500 more than in the previous year. The chief sources of income were: local rates, tolls, and taxes, Rx. 636,700; grants from provincial funds, Rx. 31,500; school fees, Rx. 22,000, and rents of municipal properties, Rx. 73,400. The expenditure of the year was Rx. 799,900, of which Rx. 428,000 were spent on roads, ferries, and other public works; Rx. 156,600 on medical and sanitary purposes, and Rx. 109,600 on education. Out of the public works outlay, Rx. 46,200 were spent on new roads, and Rx. 266,000 were spent on maintaining existing roads. The expenditure on public works was Rx. 11,000 less than in the previous year. The length of new roads made during the year was 81 miles, and of roads repaired by local boards was 21,210 miles. The expenditure on sanitation, as distinguished from hospitals and vaccination, was Rx. 52,700, of which Rx. 11,300 were spent on improving the water supply.

Bombay. In Bombay there were 23 district and 204 taluk (or subdivisional) boards: all these boards are partly elective, except in three backward districts and seven exceptional subdivisions. There were altogether 3,538 members of all boards, classified very nearly as in the preceding year, namely:—

Elected -	1,593	Non-officials -	2,745	Asiatics -	3,347
Nominated	1,945	Officials - -	789	Europeans -	187

The total number of meetings held during the year was 1,204 as compared with 1,201 in the previous year, and the average attendance of members ranged rather lower than in the preceding year The triennial terms of the boards in many districts expired during the year, and elections were held, at which a proportion of the qualified electors varying from 15·6 to 75.8, generally about 35 to 40 per cent., came to the poll. The gross income of the boards was Rx. 449,000. The total expenditure of the boards came to Rx. 477,000, or Rx. 37,000 less than in the preceding year; the chief heads of expenditure were education, and public works. In the last category were included

Rx. 42,000 spent on water supply. The incidence of local (as distinct from municipal) taxation ranged from $2\frac{1}{12}$ annas per head in the central division to $3\frac{1}{4}$ annas in the northern division and $3\frac{1}{6}$ annas in Sind, per head of the total population. DISTRICT BOARDS.

In Berar there were six district and 21 taluk (or subdivisional) boards. Each taluk board consists of 18 members, of whom 12 are elected by the people. The members of the district boards are, for the most part, elected by the taluk boards. The members of the 27 boards were divided thus:— Berar.

	TOTAL.	Nominated.	Elected.	Non-officials.	Officials.	Native.	European.
District Boards - - -	158	32	126	124	34	150	8
Taluk Boards - - -	377	133	244	344	33	377	-

All the district boards held more than the minimum number of four meetings prescribed by the rules; 18 boards held eight or more than eight meetings, and three taluk boards held less than the prescribed number of eight meetings. Sixty-seven vacancies occurred on the taluk boards during the year, for which 139 candidates came forward. Out of 26,341 persons entitled to vote, 1,826, or 7 per cent., recorded their votes; in the previous year the percentage of voters to electors was 9½. The income of the local boards was Rx. 71,400, of which Rx. 37,400 accrued from provincial rates and Rx. 8,300 from taxes on trades or professions; Rx. 3,900 from school fees; and Rx. 10,100 from provincial contributions. The expenditure was Rx. 66,600, of which Rx. 19,100 were devoted to education, Rx. 4,300 to village conservancy, Rx. 4,500 to the improvement of water supply, Rx. 3,700 to the improvement of village sites, Rx. 18,800 to roads and other public works, and Rx. 12,100 to famine relief.

In Burma local boards have not been constituted. In Lower Burma 19 district cess funds had an income of Rx. 165,100, as compared with Rx. 149,800 in 1896-97. The expenditure was Rx. 155,300, of which Rx. 72,000 occurred under the head of "Civil Works" and Rx. 17,000 under "Education." There were 16 district funds in Upper Burma, with a total income of Rx. 42,600, and an expenditure amounting to Rx. 44,300. The balance to the credit of the district funds at the end of the year was Rx. 16,700. Burma.

PORT TRUSTS.

The custody of harbours and the administration of harbour and shore affairs are placed by law in the hands of Port Commissioners, who are appointed for each of the chief ports. Members of these Port Trusts are for the most part appointed by the Local Governments, and are usually representative of the various Indian and commercial interests of the place. Port trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The Local Governments and, so far as can be judged, the public, are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of district or local boards, receive any fees for the performance of their local duties. PORT TRUSTS.

In the year 1897-98 the income of the Bombay Port Trust was Rx. 460,000, or slightly above the income of the preceding year. The receipts were below the average, owing to the failure of crops and to the plague epidemic, which combined to cause a very great shrinkage in the import and export trade. Dock dues and wharfage fees yielded Rx. 221,000, against Rx. 236,000, and warehouse fees and rents Rx. 197,000, against Rx. 180,000, in the previous year. The expenditure was Rx. 480,000, of which the chief items were Rx. 228,000 for interest, repayment of debt, and Rx. 115,000 spent on working and Bombay.

PORT TRUSTS.

maintaining the wet docks, and Rx. 48,000 on warehouse property. As compared with 1896–97, the exports of grain were much lower, while imports, chiefly of Burmese rice, rose considerably. Towards the end of the year a sharp recovery began in the exports of wheat. The exports of cotton yarn fell 29 per cent., and imports 39 per cent. Kerosine oil imports increased very largely, the exports being also less. The imports of coal were 26 per cent. higher. At the close of the year the outstanding debt of the Port Trust was Rx. 5,209,000, of which Rx. 3,028,000 were due to Government, and Rx. 106,000 represent an advance from cash balances in place of a 12 lakhs loan which could not be floated this year because of the tightness of the market; while the value of the assets and property of the Trust, after being written down, stands at Rx. 5,520,000. Fewer steamers entered the port than in the previous year, but the total steam tonnage entered during the year was 2,013,000 tons, as compared with 1,997,000 tons in 1896–97. The Board have under consideration schemes for providing better facilities for handling and moving goods.

Calcutta.

The income of the Calcutta Port Trust was Rx. 618,000, or Rx. 78,000 more than in the previous year, and the expenditure was Rx. 610,000, inclusive of the Kidderpore Dock Account. The increase of income was distributed over nearly all heads, and was due to the great increase of trade, which is shown by the figures of tonnage given below. The new docks were opened in September 1892; they have cost Rx. 2,877,000. In addition to this, a 15 lakhs debenture loan was raised during the year for carrying out improvements at the docks and jetties, erecting warehouses, &c., as part of a new scheme which has been introduced, to meet the increased demand for accommodation. The chief feature of this scheme is that the jetties are to be used only for the discharge of the cargoes of liners, which are to load cargoes in the docks or from lighters in the river. The total outstanding debt is now Rx. 4,278,000, against which may be set Rx. 183,000 at credit of the sinking fund. The special tolls, imposed to meet the charges on account of the new docks, yielded Rx. 112,800. The largest items of port expenditure were Rx. 211,900 for interest and sinking fund of the debt and Rx. 247,800 for salaries and working expenses. The receipts from the new docks rose from Rx. 61,600 to Rx. 118,200, while the cost of working and repairs rose from Rx. 53,800 to Rx. 101,200. This increase must be considered as partly due to the new arrangements for loading vessels referred to above. The charge for municipal tax on the docks and for interest on the docks loan was Rx. 129,500, as in the previous year. The deficit on the new docks was thus Rx. 112,600. The number and tonnage of sea-going vessels entering the port during the last five years has been:—

——	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
Number of vessels -	991	1,029	1,027	1,057	1,235
Gross tonnage - -	2,567,440	2,735,975	2,885,528	3,004,166	3,562,373

In the last year 1,102 of the vessels were steamers, with a tonnage of 3,311,415 tons, as compared with 133 sailing vessels, with a gross burden of 259,958 tons. There were 13 casualties during the year, none of which resulted in serious loss.

There were 41 accidents during the year, eight of them being collisions; in three only of the latter were the pilots found to have been in fault. One vessel was sunk and two damaged.

Rangoon.

The year 1897–98 showed an increase of 111,000 tons, or 8¾ per cent., in the tonnage of the sea-going vessels visiting the Port of Rangoon; the aggregate tonnage was much larger than in any previous year. The number of steamers with a tonnage of over 3,000 tons is increasing. The ordinary revenue of the Port Trust was Rx. 109,400, showing an increase of 11 per cent., as compared

with 1896–97, while the expenditure decreased 2½ per cent. The increase of revenue is due to the growth of trade and shipping. Rx. 5,000 of debt was paid off during the year; interest paid on the port loans has come down from Rx. 4,500 in 1890 to Rx. 2,700 in 1897. Rx. 22,100 were spent on repairs and extensions of works of improvement. Eleven accidents to shipping took place during the year in the harbour and approaches; in no case was material damage done to vessels in pilotage charge. PORT TRUSTS.

The expenditure of the Madras Harbour Trust was Rx. 73,000 and its receipts were Rx. 72,000. The contribution from port funds fell from Rx. 24,500 to Rx. 8,300. Harbour dues increased slightly, owing to larger imports of coal, rice, and petroleum. The total value of the trade passing through the Madras port during the year was about one-half per cent. below that of 1896–97, which had been 4½ per cent. below that of 1895–96. The tonnage of vessels entering the port was 7 per cent. below the figure of the preceding year. No further advances were made to the Trust during the year; the Trust repaid Rx. 10,000 on account of previous advances paid, and spent Rx. 22,400 on account of interest. No outlay was incurred on harbour extension and improvement during the year. Madras.

The income and expenditure of the Karachi Port Trust were respectively Rx. 93,000 and Rx. 75,000, as compared with Rx. 82,000 and Rx. 73,000 in the previous year. In the early part of the year there was a shrinkage of trade caused by famine and plague, but grain exports in the beginning of 1898 made the figures better than those of 1896–97. The principal improvements of the year were the dredging operations for deepening the port entrance and channel, on which good progress was made. The tonnage entering the port was 7 per cent. below the very low figure of the preceding year. The exports of grain were 116,000 tons, as compared with 117,000 tons in the previous year. Cotton exports and petroleum imports were the only items that showed an increase over the previous year's trade. Karachi.

There are other minor ports at which smaller sums are raised yearly and expended on improvements. The value of the total foreign trade of the five principal ports during the past four years is set forth below :—

Name of Port.	Value of the Total Foreign Trade, in Merchandise only, excluding Government Stores and re-exports, during the Year			
	1894–95.	1895–96.	1896–97.	1897–98.
	Rx.	Rx.	Rx.	Rx.
Bombay	63,159,000	65,800,000	60,017,000	52,063,000
Calcutta	71,319,000	72,317,000	74,761,000	71,995,000
Rangoon	10,431,000	12,303,000	11,259,000	12,347,000
Madras	10,986,000	10,735,000	10,261,000	10,161,000
Karachi	10,641,000	10,170,000	8,372,000	9,228,000

STATEMENT showing the Number of Municipalities in India, their Receipts and their Expenditure, for the Year 1897-98.

	Bengal.		North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.		Bombay.		Minor Provinces.	TOTAL.
	Presidency Corporation.	District Municipalities.						Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.		
Number of Municipalities	1	151	104	148	42	53	14	1	58	1	167	20	760
Population according to the Census of 1891	681,560	2,722,170	3,267,308	2,120,372	859,363	688,899	84,727	452,518	1,702,402	821,764	2,245,285	283,344	15,929,712
Receipts:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Octroi	–	–	235,603	290,697	–	80,878	–	–	–	126,822	203,143	25,502	962,645
Other Taxation	426,459	267,919	86,919	23,411	177,242	27,029	9,019	102,836	152,706	453,411	142,923	2,939	1,872,818
Sources other than Taxation (excluding Deposits and Advances).	61,006	62,535	93,341	117,732	248,183	31,288	15,848	36,812	108,046	134,323	123,048	11,778	1,043,940
Loans	159,670	24,300	27,800	12,982	54,000	9,704	–	10,000	11,538	270,000	68,370	2,000	650,864
TOTAL (1897-98) Rx.	647,135	354,754	443,663	444,822	479,425	148,899	24,867	149,648	272,290	984,556	537,989	42,219	4,530,267
TOTAL (1896-97) Rx.	704,773	362,564	411,735	433,175	415,696	145,870	20,555	138,986	314,088	724,248	557,880	40,972	4,270,542
Expenditure:													
Cost of Collection and Administration	51,963	36,797	49,452	66,601	42,313	38,296	1,761	11,436	23,908	56,050	113,154	8,479	500,210
Public Health and Conveniences	441,722	247,206	239,760	187,646	269,313	75,041	19,019	120,352	207,034	425,460	282,302	15,696	2,530,551
Public Safety	49,534	28,163	64,358	67,142	31,719	1,446	860	7,830	11,502	87,739	24,673	4,602	379,568
Interest on Debt	118,763	12,156	34,750	16,199	20,734	5,760	25	15,107	6,453	187,578	19,116	1,879	438,520
Miscellaneous (excluding Investments, Advances, and *Deposits*, and Payments to Sinking Fund).	39,711	36,038	59,541	99,242	57,019	24,278	1,356	10,275	52,186	253,767	164,735	10,840	808,988
TOTAL (1897-98) Rx.	701,693	360,360	447,861	436,830	421,098	144,821	23,021	165,000	301,083	1,010,594	603,980	41,496	4,657,837
TOTAL (1896-97) Rx.	569,437	358,006	567,592	455,299	409,864	151,512	20,346	149,829	287,031	747,828	592,793	45,519	4,355,056

SANITATION.

SANITATION.

European troops.

The health of the European troops in India during 1897 was much worse than the average, owing largely to the prevalence of malarial fevers. The average strength was 68,395, as compared with 70,484 in 1896. The total admissions into hospital were in the ratio of 1,557 per 1,000, against 1,387 in 1896, and 1,457, the average for each of the preceding 10 years; the daily average sick-rate rose from 94 to 101, and the death-rate was 22·93, or 8·09 higher than in 1896. The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 31 and 26 per cent. respectively of the total sickness. Enteric fever was the chief cause of mortality, yielding a death-rate of 9·01 per 1,000, as compared with 6·31, the ratio of the previous year. This fever alone caused nearly 39 per cent. of the total deaths. The liability of young and unacclimatised soldiers to enteric fever is again shown in the year's statistics, for among troops between the ages of 20 and 25 the death-rate from this disease was 12·74 per 1,000, while among men between the ages of 25 and 30, and between 30 and 35, the mortality equalled 4·98 and 2·77 per 1,000 respectively; and whereas among men of less than one year's service in India the death-rate from enteric fever was 18·50 per 1,000, among men of four years' service it was 6·71, and among men of five to ten years' service the rate was 2·98 per 1,000.

Cholera was more prevalent among the European troops in 1897 than in the previous year; the fatal cases rose from 63, or 0·89 per 1,000 to 80, or 1·17 per 1,000. The excess occurred chiefly at Sitapur, where there was a virulent epidemic which caused 40 deaths.

The loss to the whole European Army in India by invaliding during 1897 amounted to 2,258 men, equal to 34·99 per 1,000 of strength, against 1,966, or 27·89 in 1896. Out of the total number invalided, 1,301, or 58 per cent., were discharged as unfit for further service, as compared with 39 per cent. in 1896. As regards the influence of age and length of residence in India upon invaliding, 22 per cent. of the men between 30 and 35 years of age were invalided, whilst the figure for those between 20 and 25 was 42, and for those over 40 was 56 per cent.; 44 per cent. of men with three years' service were invalided, 37 per cent. of those with one year, and 33 of those with more than 10 years' service.

Native troops.

There was more sickness and mortality among the Native troops in 1897 than in the preceding year. On an average strength of 129,802, the admissions into hospital were in the ratio of 839 per 1,000, against 763 in 1896; the daily sick-rate was 31, an increase of 2 per 1,000, and the death-rate was 13·12, against 10·20. Ague continued to rank first among the causes of admission, and yielded 41 per cent. of the total. Respiratory diseases, as usual, were the chief causes of death, and represented a ratio of 3·23 per 1,000 of average strength, against 3·72 in 1896. Of these diseases, pneumonia alone accounted for 293 deaths, or 2·73 per 1,000 of strength, a ratio nearly five times as high as that among European soldiers from this disease. The mortality from intermittent and remittent fevers was 1·69 per 1,000. From these two causes, pneumonia and malarial fever, nearly half the total deaths were recorded. From cholera the death-rate was 0·52 per 1,000, against 0·69 in 1896. Fevers of all kinds were the cause of 14 per cent. of the total deaths, while among the European troops 44 per cent. of all the deaths were from fevers. From ague, remittent and simple continued fevers, the deaths among the Native troops yielded a ratio of 1·82 per 1,000; while among the European troops the proportion was only 1·02. On the other hand, the death-rate from enteric fever among the native troops was only 0·12 per 1,000, as compared with 9·01 among the European troops. The deaths from plague during 1897 numbered 82; the chief outbreaks were among the 2nd Bombay Lancers (16 deaths), 4th Bombay Cavalry (10 deaths), and 26th Madras Infantry (22 deaths).

SANITATION.
Jails.

The health of the prison population in India was affected unfavourably by the scarcity prevalent during 1897. The ratios of admission into hospital and daily average sick per 1,000 of strength were 975 and 39 respectively, against 939 and 39 in 1896. The death-rate rose from 27·79 per 1,000 to 39·64. The average rate of mortality ranged from 134·98 in the Central Provinces to 16·3 in the Punjab. The death-rate was higher in six provinces than in the previous year, the most noticeable case of increase being the Central Provinces, where the death-rate had been 72·11 in 1896. The mortality was next highest in Assam (48·69) and Madras (47·45), but in all provinces, excepting the Punjab, Burma, and Coorg, it was above 30 per 1,000. The increase in the general death-rate was mainly due to the emaciated condition of the prisoners admitted; while the famine also increased the amount of crime, and led to overcrowding in jails. Of the total number of prisoners discharged during the year, 17·2 per cent. had lost weight, and 62·54 per cent. had gained weight.

General population.

Births were registered throughout all the 10 provinces during 1897. The highest mean provincial birth-rates recorded were:—the Punjab, 42·6 per 1,000 of population; Berar, 39·7; Bengal, 36·94; Bombay, 33·46; North-Western Provinces and Oudh, 31·10; and Assam, 32·59. In the remaining provinces the rates ranged between 31·82 in Burma and 20·24 in Coorg. In all provinces the birth-rates were lower than in the previous year. The birth-rates exceeded the death-rates in four provinces, the excess per 1,000 varying between 11·5 in the Punjab and 2·7 in Madras. The year 1897 was marked with exceptional mortality in consequence of the famine, and the death-rate for all the provinces rose from 32·05 per 1,000 of population in 1896 to 36·03. The highest death-rates were registered in the Central Provinces (69·34) and Berar (52·6). In Assam the rate was 50·61; in Coorg, 50·03; in the North-Western Provinces, 40·46; in Bombay, 39·84. In the remaining provinces the rates ranged from 32·94 in Bengal to 25·4 in Madras. In all the provinces, except Bengal and the Punjab, the death-rates were higher than in 1896. The greatest increase occurred in the Central Provinces, where the death-rates rose from 49·31 to 69·34.

From all the chief diseases, more deaths were registered than in 1896. From cholera there were 550,768 deaths in 1897, being in the ratio of 2·59 per 1,000 of population, against 469,667, or 2·21, in the previous year. The chief increase occurred in Madras and Assam. The death-rate from cholera was highest in Assam, 6·62 per 100, and in the Central Provinces, 6·01 per 1,000. Madras came next, with 4·4, a ratio much higher than that recorded in the previous year; the rate in Berar was 3·5 and in Bombay 3·03.

From small-pox the deaths rose from 132,784, or 0·62 per 1,000, to 160,059, or 0·75. The increase occurred especially in the North-Western Provinces and Madras. In the former the deaths rose from 42,771, or 0·91 per 1,000, to 87,127, or 1·86, which was the highest ratio recorded by any province; and in the latter, from 9,410, or 0·3 per 1,000, to 21,678, or 0·7.

Fever deaths rose from 4,531,833, or 21·36 per 1,000 of population, to 4,979,028, or 23·48. This shows an increase in 1897 of 447,195 deaths, in which all the provinces except Bengal participated. The increase in fever mortality was most marked in the Central Provinces, the Punjab, Assam, and the North-Western Provinces and Oudh, the fever death-rates of which rose from 29·55, 19·15, 20·18, and 25·71 in 1896 respectively to 40·98, 20·57, 28·74, and 31·21 in 1897.

The total number of deaths returned under dysentery and diarrhœa was 396,285, or 1·87 per 1,000, against 235,235, or 1·11, in 1896. In all provinces the mortality under this head was more than in the previous year; in the Central Provinces, Bombay, and Berar the increase was marked, the death-rates being 8·53, 4·57, and 10·3, as compared with 3·41, 1·92, and 6·2 in 1896.

Vaccination.

The total number of successful vaccinations performed during 1896–97 was 7,124,474, being a decrease of 184,613 on the previous year's work. Over 2¾ millions (2,884,596) of the total cases were under one year of age, and nearly 3¼ millions (3,099,235) were between the ages of one and six years. The proportion of population protected by the year's operations ranged from 58·24 per 1,000 in Coorg, and 46·67 in Assam, to 25·97 in the North-Western Provinces and Oudh.

Some of the important sanitary works which have been either completed, in progress, or under consideration during 1897, were as follows:—In Calcutta further progress was made in the improvement of bustees, or clusters of Native huts. The increased supply of filtered water which was begun in the previous year was fairly maintained, and the average daily consumption was 38·1 gallons per head of population for the town proper, and 11·26 gallons for the suburban area. In the course of the year the distribution pipes were extended about 2½ miles, bringing the total length up to 315 miles, and the total number of premises connected had reached 27,775. The supply of unfiltered water was lower than in the last two years, the daily consumption per head of population being equal to 12·51 gallons as compared with 13·43 gallons in 1895. At the close of the year 1897–98 the total length of sewers was 200 miles, and the number of premises connected with them was 29,848, of which 260 connections were made during the year. The new drainage project for the municipality was in hand, and the work has been going on vigorously throughout the year. SANITATION. Bengal.

The municipalities of the interior of Bengal spent Rx. 203,426 on sanitation, a decrease of Rx. 39,581 as compared with the sum expended in 1896. In addition, the municipalities and district and local boards spent Rx. 209,934 on sanitary works; and a further sum of Rx. 116,747 was contributed by private individuals for the same purpose, the latter item showing a satisfactory increase. The most important works were the completion of the Bhagalpur water-supply, commencement of work on the Berhampore water-supply, and the extension of that of Cossipur-Chitpur. A drainage scheme for the latter municipality, and for that of Maniktola, were under consideration, and the Krishnagar scheme has been adopted. The Howrah scheme, which was prepared by the engineer of the Calcutta Corporation, was found too expensive, and has fallen through. The Sanitary Board held two meetings in the course of the year, when, among other important matters, they discussed the Howrah drainage scheme and the drainage of the suburbs of Calcutta. Under the orders of the Government the Board prepared a water-supply scheme for the Garden Reach Municipality, estimated to cost Rx. 5,000, and another for Darjeeling, to cost Rx. 11,000. For the Patna Municipality a road drainage scheme was prepared, estimated to cost Rx. 5,600. Experimental borings for water were carried out with great success at Patna, and it is in contemplation to substitute the river Sone for the Ganges as the source of the town's water-supply.

In the North-Western Provinces and Oudh the municipalities expended over 41 per cent. of their income on water-supply, drainage and conservancy. In most of the municipalities possessing waterworks, house connections were extended, and the quality of the water was good. The year was one of plague and famine in this province, and was therefore unfavourable to the initiation of any large schemes. Extensions were made to waterworks at Allahabad and Benares, and reservoirs were begun at Naini Tal, for which town a comprehensive scheme is in course of preparation. At Benares and Mussoorie drainage projects were in progress. The chief work of the year lay rather in village improvements in connection with famine relief, and in the measures taken for the prevention of plague. The sanitary commissioner reports that the principal towns of the provinces have never been, during the last 20 years, in so satisfactory a sanitary condition as they are at present. The Village Sanitation Act, which had been found useful in certain districts to which it had been tentatively extended, was in 1896 brought into force throughout the provinces. Two meetings of the Sanitary Board were held during the year under report. North-Western Provinces and Oudh.

In the Punjab the municipal towns spent 23 per cent. of their income on sanitary work. During the year the water-supply scheme of Pind Dadan Khan, in the Jhelum district, was completed, as was also the water-supply for the cavalry lines at Kohat. The water-supply projects of Bhiwani, Peshawar, and Edwardesabad were in progress, and those of Amritsar, Ludhiana, and Mooltan, the extension of the Delhi supply, and the supply of the Mian Mir cantonments from Lahore, were under preparation. In Delhi a portion of the drainage scheme has been completed, and the remainder is under preparation. Punjab.

SANITATION. Drainage projects for Mooltan, Rawalpindi, Hazro, and other towns were in progress, while Rx. 7,800 were spent on the works at Lahore, and Rx. 1,060 on drains at Peshawar. Besides these, several works of public utility were constructed by private individuals at their own expense to serve sanitary purposes. The Sanitary Board met once during the year, when they considered, among other matters, the prevalence of fever in the province, specially in swampy and water-logged areas, and the remedies that might be applied; and suggestions concerning the unhealthiness of certain villages in the Umballa district.

Burma. The towns and districts of Burma spent over 33 per cent. of their income on sanitary improvements. No important work was undertaken during the year, but municipal committees are reported to have devoted a considerable share of their attention to the subject, and expenditure was incurred on the preliminary experiments and surveys which are necessary before a mature scheme can be elaborated. A sanitary engineer has been appointed for the province, and was employed during this year in examining a scheme for supplying water to the town of Moulmein. In Rangoon experiments carried out by private individuals, with a view to testing the efficiency of tube wells as a permanent source of water-supply, appear to have met with success. Schemes for improving the water-supply were being considered by the municipal committees of Bassein and Prome. The work of the Sanitary Board was again restricted to the provision of suitable sanitary maps of the larger towns.

Central Provinces. The municipalities in the Central Provinces expended 18 per cent. of their income on conservancy, drainage, and waterworks. The most important works undertaken or in progress were schemes for supplying water to certain municipalities. The Jubbulpore waterworks were further extended during the year, and are now nearly completed. The Khandwa works were practically completed, and progress was being made with those at Wardha; but the Harda scheme has been temporarily postponed for want of funds. The system of village sanitary inspection books has been introduced in several districts, but little progress was made in filling them in with the information required, owing to the heavy duties falling on civil surgeons in connection with the famine. The Village Sanitation Act of 1889 was extended to one additional village during the year. The Sanitary Board met in each of the four divisions during the year, when proposals and estimates for schemes of sanitary improvement in the various districts were considered.

Assam. Excluding the towns of Hailakandi, Sunamganj, Karimganj, and Maulvibazar, which have no separate incomes of their own, the municipalities, stations, unions, and towns in Assam spent 44 per cent. of their income on sanitation. No extensive sanitary work was undertaken during the year, but the waterworks at Gauhati and Shillong, which suffered from the earthquake, were under repair. The sanitary improvements effected in rural tracts were comparatively unimportant, though some progress was made in the direction of providing a purer water-supply by the construction of masonry wells and the excavation of tanks at some of the larger villages. No meeting of the Sanitary Board was held during the year.

Madras. In the Madras Presidency the municipal councils allotted 63·6 per cent., and the district boards 8·4 per cent., of their income for sanitary purposes. During the year the water-supply works at Conjeeveram and Kurnool were completed. Village sanitary inspection report books were in use in all unions in 19 out of the 22 districts of the Presidency at the end of the year, the exceptions being Malabar, Anantapur, and Tanjore. The Sanitary Board during 1897 scrutinised plans and estimates for 46 municipal and 68 local fund works. The Sanitary Engineering Department completed surveys for water-supply or drainage for two municipalities, and one scheme was still under consideration. Four schemes, costing Rx. 167,700, were submitted to the Sanitary Board, the most important being the water-supply scheme for Negapatam, estimated to cost 10 lakhs, and a drainage scheme for Cuddapah, to cost 5½ lakhs. The latter, as well as a water-supply scheme for Tuticorin and a drainage project for Ootacamund, was under consideration of Government at the end of the year. Preliminary reports were also made regarding the water supplies of Ellore, Conjeeveram, Trichinopoly, and Cuddapah (extension); the estimate for the Coconada works was revised, and other minor estimates made.

The water-supply works which had been in progress at Kurnool and Conjeeveram were completed during the year, and those of Coconada, Tirupati, and Vizagapatam were in progress. In improving the sanitation of Madras City several useful improvements were being carried out. The water-supply was extended, and a project estimated to cost nearly 16 lakhs was submitted to Government. The long-contemplated scheme for the drainage of the city has been taken in hand, the Commissioners having now almost finished the drainage of Mylapur. But it will be several years before the drainage scheme is completed, and until this is done, and the proposed improvements in the water-supply are effected, Madras cannot be expected to become a healthy town. SANITATION.

In Bombay Presidency the municipalities, exclusive of Bombay itself, allotted 75·21 per cent., and the district boards 20·84 per cent., of their income for sanitary purposes. During the year improvements to the waterworks at Hyderabad, Surat, Ahmednagar, and Jacobabad were executed; while those at Yeola, Sukkur, and Karachi were practically completed. One-fifth part of the sewerage scheme at Ahmedabad was completed. There was not, however, satisfactory progress in sanitary works during the year, owing to the demands on municipal funds caused by the plague. The Bombay Village Sanitation Act of 1889, under a modified form, has been brought into force in all the districts except Kanara and Upper Sind Frontier. The Sanitary Board gave advice concerning a large number of projects, including the waterworks of Malegaon in Nasik district, and Sholapur, the sewage farm at Hyderabad, and other sanitary schemes which had been submitted to them. The water-supply and drainage of Poona and Nasik are still unsatisfactory. In Bombay City the Shone system of sewerage at Colaba worked uniformly during the year. In other divisions drainage and sewerage works were in progress, while several new works were commenced. The water supply of the city from the Tansa, Vehar, and Tulsi lakes continued to be adequate; structural and other improvements in the reservoirs were being carried out. Bombay.

The municipalities of Berar spent 71 per cent. and the district boards about 16 per cent. of their income on sanitary improvement. No new works of any great importance were undertaken during the year, but Rx. 2,500 were spent on repairs to the Khamgaon tank, and a drainage scheme for Amraoti was under consideration, while in the latter town specially active measures were also taken to guard against plague. The District Sanitary Boards met once at each of the six headquarter stations. The Medical Department of the province was much occupied in supervising famine relief camps, and the sanitary survey did not make much progress during the year. The total of towns and villages surveyed up to date is 918. The Sanitary Commissioner states that sanitary progress has been steady, though slow, and that the people have generally appreciated improved water-supply, drainage, or conservancy. Berar.

CHAPTER II. A.

FAMINE AND PLAGUE.

FAMINE.

Last year's Statement brought down the account of the famine to the end of 1897, which may be considered to have been at its close, although its effects are strongly marked on the economic history of the year 1897–98. At the end of 1897 a Commission was appointed, under the presidency of Sir James Lyall, G.C.I.E., K.C.S.I., to inquire in India into the circumstances of the famine, and to report, not on the broad principles upon which famines should be combated, but on the working of the famine codes in the various provinces, the success of the measures adopted, and the modifications which the famine had suggested for future guidance. The main features of the Commission's report may be summarised as follows.

North-Western Provinces.

In the North-West Provinces the work assumed larger proportions than elsewhere. Much valuable experience had been gained in the well-managed famine of 1896 in Bundelkhand, and relief was begun in good time. The Government showed incessant activity, a constant grasp of the situation, and power of enlisting the services of native leaders. The result was, in the words of the Commissioners, a "conspicuous success and a great administrative feat." The degree of success in saving life and relieving distress they consider to have been very great; but in view of the difficulty of satisfactorily defining the term "starvation deaths," the figures returned on this subject are not held to be sufficiently trustworthy in any province for serious discussion. The rate of mortality in the famine districts during the year ending September 1897 was 39½, as compared with a normal death-rate for the whole provinces of 33 per mille. Some of the measures adopted with the view of economy contained elements of risk, and with a weaker set of officers under less able guidance might have led to failure; though the Commissioners guard themselves from implying that any necessary relief was withheld in this case.

Bengal.

In Bengal famine was declared to exist in 15 out of the 46 districts of the province. The general conclusion of the Commission is that the measures taken were eminently successful, both in saving life and in mitigating distress, and that the result was attained, on the whole, with a due regard to economy,

Central Provinces.

There had been considerable distress in the Central Provinces from 1894 onwards, and in the opinion of the Commissioners the official recognition of famine and the initiation of relief measures were unduly delayed, and the relief given in 1895 and 1896 was insufficient. The death-rate was very high in both those years, while it rose in 1897 to 69·3 for the whole province, as compared with a normal rate of 33·7 per mille. The Commissioners recognise the many special difficulties which had to be met, but consider that the degree of success achieved was not in all respects complete.

Madras.

In Madras the approach of the calamity was promptly foreseen, and the measures taken were as a whole adequate and successful; it is, however, a question whether the relief afforded was not in some respects needlessly liberal, as the famine in Madras was of no long duration and no exceptional severity.

Bombay.

Nine districts in Bombay were affected, and the death-rate in the Presidency during the year ending in October 1897 was 45 per mille, as compared with a normal rate of 29·56. The administration of relief is reported to have been distinctly successful both as regards saving of life and mitigation of distress. The points open to criticsm are the concentration of famine labour on large public works, and the small amount of remissions and suspensions of land revenue; on the other hand, very large advances were made under the loans Acts to agriculturists, and the camps formed at the relief works were exceptionally good.

Burma. Punjab.

There was little actual famine in the Punjab and in Burma, but the measures adopted in cases where relief was needed were very successful.

The hill tribes of Berar suffered severely from famine, and the extreme difficulty of getting relief to these tribes rendered it impossible to prevent loss of life; the actual figures are not, however, available. Elsewhere in the province the existence of famine, to such extent as it existed at all, was mostly due to the influx of famished wanderers from the Central Provinces. FAMINE. Berar.

The opinion of the Commissioners as to the success of the famine operations as a whole, is summed up in the following extract from the report:—

"Viewed as a whole, we consider that while the areas over which intense and severe distress prevailed in the famine of 1896–97 were greater than in any previous famines, the success actually attained in the relief of distress and saving of human life was, if not complete, far greater than any that has yet been recorded in famines that are at all comparable with it in point of extent, severity, or duration; and that this result has been achieved at a cost which, when compared with the expenditure in previous famines, and with other standards that we have had before us, cannot but be regarded as very moderate."

The following paragraph of the report deals with the material progress of the people and their capacity to resist famine:—

"In thus following the Famine Commissioners in recommending an active policy in the extension of irrigation, we recognise that in one respect the case is less urgent now than when they made their recommendations. Except in Upper Burma there are now no large works which are certain to be remunerative awaiting construction or completion within the districts which are most liable to famine, or in which the pressure of population is most severe. But all other reasons in favour of such a policy hold good, and they are strengthened by changes in condition which have occurred since 1880, namely, the great extension of the railway system, the growth of the export trade in grain, and the still greater rate of increase in the population. In view of these conditions, we have no hesitation in recommending the rapid extension of irrigation to remote districts in Sind and the Punjab, however free they may be from liability to famine, and however scanty their population, as the principal means for giving to the country an additional food supply which is beyond the risk of drought, and for increasing the proportion of secure to insecure cultivation. One of the most remarkable features in the recent famine was the uniform level of prices all over the country, which is attributable to the ever-extending system of railways, and which, if it increased the area, greatly diminished the intensity of distress. By some it may be thought that the value of the latter result is much diminished by the effect of the former, but if new grain-producing centres can be established in districts which are themselves remote from all danger of famine, the railways which transport their produce to the regions in which scarcity and distress prevail will be an unmixed blessing to all. The completion of the Southern Punjab and other railways will render the grain that may be grown in Sind or the Southern and Western Punjab almost as valuable a reserve for Northern, Central, or Western India as if it had been grown in these regions. The demand for export, which is by some viewed with apprehension, will stimulate and encourage the cultivation in these newly-irrigated tracts, but as that demand contracts or ceases on the rise of prices in India, due to the approach of famine, the produce will be available for consumption within the country. Moreover, as the amount of exports depends on other considerations than the quantity of grain in the country, much of this new produce will, even in ordinary years, remain and form a permanent addition to the food supply."

The famine has, as was inevitable, suggested a large number of alterations in the famine codes, and with these the Commissioners deal in detail. Their other recommendations relate (1) to the famine insurance grant; they consider that it should be regularly maintained at a rate of 1½ crores per annum, and that the portion of it which is available for the construction of protective works should be devoted for the most part, if not wholly, to irrigation; and (2) to the nature and object of irrigation works which should be selected, while they recommend that minor irrigation works in the districts liable to famine should be undertaken, they express their views as to the desirability of major works in the following paragraph:—

FAMINE.

"The general conclusions we are disposed to draw are, that it may be said of India as a whole that of late years owing to the high prices there has been a considerable increase in the incomes of the landholding and cultivating classes, and that their standard of comfort and of expenditure has also risen. With a rise in the transfer value of their tenures, their credit has also expanded. During the recent famine these classes, as a rule, have therefore shown greater power of resisting famine, either by drawing on savings, or by borrowing, or by reduction of expenditure, than in any previous period of scarcity of like severity. Whether it can be safely said that they have much improved in thrift, that is, in the accumulation of capital, seems open to doubt. There is some evidence to the effect that the export trade and the improvement of communications have tended to diminish the custom of storing grain, as a protection against failure of harvest, which used to be general among the agricultural classes. The skilled artizans, excepting the weavers, have also greatly improved their incomes and their style of living and very few of them required relief. The commercial classes, whose numbers are relatively small, are not generally injuriously affected by famines of short duration. The poorer professional classes suffered severely from rise of prices, but do not come on famine relief. Beyond these classes there always has existed, and there still does exist, a lower section of the community living a hand-to-mouth existence, with a low standard of comfort, and abnormally sensitive to the effects of inferior harvests and calamities of season. This section is very large, and includes the great class of day labourers and the least skilled of the artizans. So far as we have been able to form a general opinion upon a difficult question from the evidence we have heard and the statistics placed before us, the wages of these people have not risen in the last twenty years in due proportion to the rise in prices of their necessaries of life. The experience of the recent famine fails to suggest that this section of the community has shown any larger command of resources or any increased power of resistance. Far from contracting, it seems to be gradually widening, particularly in the more congested districts. Its sensitiveness or liability to succumb, instead of diminishing, is possibly becoming more accentuated, as larger and more powerful forces supervene and make their effects felt where formerly the result was determined by purely local conditions."

PLAGUE.

PLAGUE.

In last year's Statement was given an account of the plague epidemic in Western India; the narrative was brought down to the end of 1897; and some account was given of occurrences during the early months of 1898.

Up to the end of 1897 the total number of plague deaths reported from the Bombay Presidency had been 57,943; probably the real total was considerably above this figure; the proportion of deaths to cases had ranged from 63 to 94 per cent.; only a very few sporadic cases had occurred outside the Bombay Presidency; and plague never appeared among the millions of famine-stricken people who were receiving relief in many parts of India during the nine months ending in September 1897. Severe precautions were being taken to prevent plague being carried to new places, either in India or beyond the sea; a large outlay was being incurred on the mitigation and prevention of plague; and the epidemic had contributed to cause a large shrinkage in the external trade of India, especially of Bombay. The beginning of January 1898 found the plague epidemic established in Bombay, Poona, Satara, Surat, Nasik, Sholapur, Belgaum, Ahmednagar, Baroda, and six other places or districts in the Bombay Presidency. The reported plague deaths of the first week of January in the Bombay Presidency were 1,318, while for the same week 11 plague deaths were reported from the rest of India. The plague deaths rose rapidly in Bombay city until the middle of March, when 1,228 deaths a week were reported; the mortality then fell, reaching its lowest, 25 deaths a week, in June, as compared with three deaths a week in July 1897. From July 1898 the deaths again increased; they reached 146 a week by the end of December. Early in 1899 there was another severe outbreak, the plague deaths of Bombay reaching 1,120 a week at the end of March 1899. Karachi was absolutely free from plague for eight months ending March 1898, when another severe outbreak occurred, culminating in 480 deaths a week in the first half of May.

As the year went on, the epidemic abated considerably during the hottest months, but it spread to new districts, and before the end of the year 1898 the epidemic had been very severe in the districts of Satara, Dharwar, Belgaum, Kolhapore, and parts of Kathiawar. It was serious in four other districts. In October 1898 the Belgaum district returned 1,295 plague deaths a week, and in November the Dharwar district returned 2,358 deaths in one week. The worst week was in October, when 5,078 plague deaths were reported from the Bombay Presidency. The total reported deaths for the year from the whole Presidency were 104,881, while 28,103 more were reported during the first three months of 1899. Thus the reported plague deaths from the Bombay Presidency, from the beginning of the plague in September 1896 down to the end of March 1899, a period of 2½ years, were 191,000. PLAGUE.

Wherever plague broke out, medical men and women and nurses were sent, hospitals were organised, disinfection of houses was carried out, and in the rural districts whole villages were evacuated, the people migrating into temporary booths erected at some distance from their villages. In the Dharwar district more than three-quarters of the villages attacked were thus evacuated. Perhaps the most notable instances of these operations were Sholapur, a town of the Bombay Deccan, where 25,000 people were moved out bodily into a town of booths, while their houses were thoroughly disinfected; and Kophal, a town in the Hyderabad territory, containing 18,000 people. The report says that "six fatal cases of plague occurred in the town; the evacuation began on the 25th January, and was completed by the end of the month, a large camp of substantial bamboo and grass huts having been erected in the interval. The evacuation is said to have been entirely spontaneous, and was effected, including the erection of the camp, by the people themselves." In very few instances did the people object to evacuation of this kind; everywhere the plague was stayed by the process; and in very few cases did the disease reappear after the return of the inhabitants to their disinfected homes. But evacuation was not in many cases so prompt as at Kophal, and complete evacuation was impossible in large cities like Bombay, Calcutta, or Poona; but in such places every infected house was almost invariably evacuated for disinfection. To some of the plague precautions serious objection was, ignorantly or otherwise, taken by the people; and riots, accompanied in some cases by attacks on plague officers, occurred in Bombay, Calcutta, Poona, Hurdwar, Rahon in the Punjab, in the Nasik district, and at some other places. Now that plague has been epidemic for three years in succession, the tendency is to relax some of the severe precautions which at one time were adopted in the interior of the country, while at the same time enforcing to the full all prescribed precautions against the carriage of plague by steamers or other vessels to places outside India. In the exercise of these precautions many hundreds of thousands of sailors and passengers have been examined by special medical officers at the seaports before they were allowed to depart from India. The number of plague cases known to have occurred on ship-board after the departure of vessels from India has been extremely small. Outbreaks of plague have been reported from Jeddah, the Mauritius, and Madagascar, but in no case did the disease become epidemic.

The year 1898 and the first four months of 1899 have been marked by the spread of plague into Mysore, the Nizam's territory, the Panjab, Bengal, and the Central Provinces. But Bangalore, Mysore town, parts of some districts in the Mysore State, and parts of three districts in the Hyderabad country, are the only places or tracts outside the Bombay Presidency in which the disease has assumed epidemic form. The total plague deaths reported outside Bombay Presidency from 1896 down to April 1899 have been, approximately,—

Bengal	953
North West Provinces	117
Central Provinces	133
Panjab	1,920
Madras	1,804
Mysore State	9,046
Hyderabad State	4,764
Central India and Rajputanta States	135
Total	18,872

PLAGUE.

These, added to the total number reported from the Bombay Presidency, make a grand total of about 210,000 reported plague deaths. Probably the real total is larger, and may amount to between 250,000 and 300,000 in all during the 2½ years for British India and Native States. The loss of life from plague is, so far, much less serious than the loss from cholera, which, during the 10 years 1883–92, numbered from 762,695 (the highest figure of the decade) to 208,371 (the lowest figure of the decade) victims a year in British India alone.

In November 1898 a Plague Commission, consisting of three medical experts from the United Kingdom and two Indian officials, was appointed to investigate plague questions in India. After visiting all the plague-stricken provinces, making scientific investigations, and taking evidence, the Commission returned to England at the end of April 1899, and their report will be submitted to the Government of India during the summer of the present year (1899).

CHAPTER III.

CRIME AND POLICE.

The sanctioned strength of the District Executive Police at the close of 1897 was 23,788 of all ranks. The railway police, in addition, numbered 654, and the military police 300. These numbers give a proportion of one policeman to 2,880 persons, which is one-third the proportion in Bombay, and considerably less than half the proportion in the other provinces excepting Assam. The difference is as marked with respect to the proportion of police to cognisable crime investigated. In Bengal the proportion is one to 4·3 cases; in the North-West Provinces and Oudh, where, with a much smaller population, the cases investigated are about the same in number, the proportion is one policeman to 2·8 cases.

The expenditure on the force in 1897–98 was Rx. 528,328, or Rs. 24,408 more than in 1896–97, and Rs. 39,928 over the budget grant. Of this excess, Rs. 27,314 represents compensation for dearness of provisions.

Under recent rules for the more careful selection of subordinate officers, a much better-educated class is recruited; as many as 84·5 per cent. of officers are now educated; the proportion of educated men in the rank and file being 24·6 per cent. The police training school was maintained in a high state of efficiency. The range of subjects taught, in addition to law and criminal procedure, includes drill, surveying, anthropometry, finger print decipherment, &c. Athletics are encouraged, and cricket and football matches are played against neighbouring schools, and annual sports are held.

It has been found to be necessary to raise the pay of the town police in order to attract suitable recruits. A self-checking system of patrol has been tried with satisfactory results, and introduced in many districts, in place of the old system of watch and ward, which did not work well. Its more general introduction is in places obstructed by the defective street lighting and by the many other calls on the resources of municipalities.

The rural police number 160,000 men. Their position has been very much improved of late years, and the office of chaukidar has in consequence risen in general estimation. Formerly this body was unprovided with officers. Within the last three years, by an amendment of the Police Act, any specified area or group of dwellings can be formed into a statutory village; petty officers, to the number of over 3,600, have been provided as intermediaries between the village watch and the regular police, and many more will be appointed. A maintenance of the present rate of progress will ensure a reform in chaukidari arrangements, which will be greater than has been effected in any other branch of the criminal administration, and very beneficial to the community.

A new station-beat system, by which the police are made better acquainted with all that is going on in their jurisdictions, has been fully introduced in almost all districts, and has already secured the following results:—(1) the arrest of absconders and thieves, (2) the discovery of unreported cases of burglary and theft, and (3) the prevention of disturbances by bringing to notice local dissensions and unrest likely to cause breaches of the peace.

In certain divisions and districts members of the village police are detailed for the patrol of roads used for commercial, pilgrim, or mail traffic which pass through jungles and over hills. Rivers, also, that serve as trade routes between Eastern Bengal and Calcutta are patrolled by the police.

The Bengal Military Police, a smart and well-conducted force, consists of three companies, who maintained the peace during the Muharram and after the Calcutta riots. They enlist under a three years' engagement, and are consequently more to be relied on than ordinary constabulary, who can resign by giving two months' notice. The service is popular, and most of the men renew their engagement. Of the various forms of athletic sports which are encouraged among them, wrestling is the most popular.

CRIME AND POLICE. In the last three years the casualties in the force from all causes have been 10·6, 9·4, and 8·3 per cent.; the number of deaths, however, in 1897 (552) representing an increase from 2·13 per cent. to 2·25.

A well-considered diminution in the number and severity of departmental punishments, which was opposed at first by many officers, has not brought about any relaxation in discipline; on the contrary, there is less discontent and more ready obedience to regulations than formerly.

Of late years the police have succeeded in securing the conviction of a larger proportion of criminals than in any corresponding period; they have acquitted themselves creditably throughout the time of unrest which has more or less prevailed since Hindu fanaticism, first excited by the appeal to their religious feeling in the matter of the sacrifice of kine, gradually brought about counter demonstrations on the side of the Musalmans. On no occasion have they been overpowered by a mob, or shown any inclination to side with co-religionists.

The number of deaths by suicide among the general population increased from 3,154 to 3,366, and accidental deaths reached the large figure of 46,412, or 58 per cent. higher than in 1896; 25 reported cases of accidental death proved on inquiry to be murder.

*Cognisable crime increased more than 25 per cent., four-fifths of the increase consisting of petty offences against property committed by persons under stress of hunger. The police investigated 75·5 of the number reported, against 78·0 per cent. in 1896, and 75·2 per cent. in 1895, or omitting sanitary offences, the figures for the three years are 70·5, 72·3, and 67·7 per cent. respectively.

North-Western Provinces and Oudh. The year was one of exceptional difficulties in this province, and the strain on every branch of the police force was severe. Apart from the famine and the precautions taken against the spread of the plague, there was a serious increase in crime calling for investigation by the police. Though many of the offences reported were petty thefts and burglaries, connected with the scarcity and high prices, there was also a considerable increase under the head of graver crimes. Dakaiti was rife in many districts, chiefly those adjoining Native States, and was accompanied by the increased use of firearms. Efficient assistance in breaking up the gangs was rendered by the authorities of the Rampur and Gwalior States. The police were, on the whole, remarkably successful, not only in tracing and bringing to justice offenders of this class, but also in preventing crime by the arrest of armed gangs. There was a general increase in cattle theft, which was on the whole well met by the police, as shown in a substantial increase of convictions. Cattle poisoning was more prevalent owing to the demand for hides and the poverty of the village *chamárs*. There was an increase also in other heinous crimes, especially homicide and kidnapping.

The total strength of the Provincial, Municipal, and Railway Police, amounting to 25,711, was rather higher than in 1896, and 7,524 of them carried firearms. Progress was made with various reforms, including the raising of the pay of subordinate grades, at a cost of 2 lakhs of rupees, which increased the total expenditure from Rx. 523,937 to Rx. 546,320.

Judging from the smaller number of punishments the discipline and efficiency of the force showed considerable improvement. Four charges of torture were, however, brought against the police, all of which ended in conviction.

Punjab. The sanctioned strength of the Punjab police in 1897 was 19,819 of all ranks, or, roughly, one to five square miles. All but 90 were natives of India. The estimated cost of the force was Rx. 353,224, of which Rx. 295,133 was debitable against imperial or provincial revenues. With a very slight decrease in the ratio of convictions to cases reported (33 per cent.), the percentage of persons convicted to those put on trial rose from 58 to 62. The force did excellent service in connection with the frontier disturbances and with the plague operations in the Jullundur Division.

Burma. The sanctioned police force of Burma was reduced from 13,859 to 13,545, and the total cost of its maintenance was Rx. 375,674. The actual force was, at the end of the year, 4·4 per cent. under sanctioned strength. The general conduct of the men was above the average, as shown by a decrease (20 per cent.) of punishments, and an increase (12 per cent.) of rewards. The propor-

* Cognisable offences are those for which the police can arrest without warrant.

tion of illiterate men remained at about 20 per cent. The training schools show progress, the number of constables passed through them during the year having increased from 6,431 to 6,839. CRIME AND POLICE.

The total number of true cases of cognisable crime disposed of in 1897 was 48,484. Crimes of violence again diminished in number, though such crimes and also cattle theft were prevalent in Tharawaddy and Hanthawaddy districts, and dacoity and the frequent use of firearms by dacoits, in the Akyab district. With judicious management village headmen are generally able and willing to render the greatest assistance to the magistracy and police, and it is an important part of the duties of a district superintendent to do his best to secure their aid.

The sanctioned strength of the railway police was raised to 347, but the force was 38 short of that number at the end of the year.

The military police force was reduced to 15,167 men, and the expenditure to Rx. 420,646. Their conduct was generally good. The only fighting was in the Wa country, where six men were killed.

Excluding public and local nuisances, the number of offences reported in 1897 was 47,801, an increase of 37 per cent. upon the figure for 1896, and more than double that for 1893, which stood at 19,555. The effect of the distress which prevailed during the year is apparent in the much larger number of offences against property, the crime being mostly of a petty nature. Murders and dacoities were considerably more numerous, but the latter were generally cases of grain looting by starving villagers, and were seldom accompanied by violence. Of the 231 murders of the year, 45 more than in 1896, 10 were by dacoits and 71 by robbers, the majority of the latter being attributable to famine and distress, and eight were murders of reputed wizards and witches. In 1896, compared with 1895, dacoities trebled; in 1897 they further increased by 37 to 161. Famine again was responsible to a great extent for the increase of robberies from 185 in 1896 to 268 in 1897, many of the cases being robbery of grain from men and women returning home from markets in the neighbouring villages. There was no renewal of the serious outbreaks of lawlessness and the grain riots which occurred in 1896. Central Provinces.

Though there was a slight diminution in the ratio of investigations to reports, 34 per cent. more cases were investigated in 1897 than in the preceding year, and there was an improvement in the number of convictions and in the amount of property recovered. These results, though largely due to the open way in which much of the crime against property was committed by distressed people, and the consequent ease with which it was brought home to the offenders, were nevertheless creditable to the police, the more so that their work was greatly augmented, not only by the increase of theft, but also by duties of an extremely arduous nature incidental to famine relief.

The district executive police numbered 8,121 of all ranks, the average pay of the mounted and unmounted constables being Rs. 21.12.0. and Rs. 7 per month respectively. There were also 381 railway police of all ranks.

The sanctioned strength of the police force in Assam at the close of 1897 was as follows:—Military police, 2,942 of all ranks; civil, 2,298; union, 15; rural, 6,993; in all 12,248. The cost of the military and civil police increased from Rs. 140,895 to Rx. 148,918, owing chiefly to the greater cost of free rations and compensation for the high price of food grains. The cost of the rural police, which is paid by the villages, was Rx. 32,651. The conduct of the force was good, but the resignations were more numerous than they should have been. The percentage of convictions was 78·9 of the cases decided, and that of tried cases to cases reported was 84·2, representing one offence to 422 of the population. Assam.

The strength of the police force of the province consisted, as in 1896, of nine gazetted officers, 563 subordinate officers, and 2,326 constables. The total expenditure amounted to Rx. 55,601. Berar.

Owing to the famine, which was severely felt throughout the first three quarters of 1897, cognisable crime (exclusive of nuisance cases) increased greatly, the number of cases being nearly double that of any of the preceding four years, and the increase being distributed among all classes of offences.

CRIME AND POLICE. The number of murders increased from 39 to 49, of which 21 were connected with robbery, the significant feature being that in several instances the property, for the sake of which the crime was committed, was of trifling value. The increase of dacoity was very marked. The number of housebreakings also rose from 1,185 in 1896 to 3,147, and in a large proportion of these also the value of the property taken was small.

The working of the police was satisfactory during a year in which the strain upon their services was exceptionally severe. Of the cases that occurred 82 per cent. were investigated by them, and in 60 per cent. of these cases convictions were obtained. The proportion of stolen property recovered was 31·3, against 28·1 in 1896.

Madras. The actual strength of the executive police force in Madras (22,815) and its cost (Rx. 437,409) were somewhat less than in 1896, giving a proportion to population of one policeman to 1,689, and an average cost of Rs. 194.5.5., or not two annas per head of the population. The proportion of men able to read and write increased from 85·7 to 86·4.

The number of violent deaths rose from 12,401 to 13,969, of which 2,208 were suicides and 11,043 were accidental. There were 9,789 fires, and property worth 14½ lakhs was destroyed and 153 lives were lost; these figures are much more favourable than those for 1896.

The high prices were the cause of a considerable increase of crime under the penal code, but under special and local laws there was a decrease. As might be expected in a year of distress, there were more dacoities, robberies, and cases of housebreakings and thefts of cattle.

Bombay. The strength of the police, including Aden, was 24,214, an increase of 691 being due to the inclusion of the Abkari force among the Mofussil police. For the same reason the cost of maintenance rose from Rx. 499,434 to Rx. 529,441.

The number of cognisable cases reported in the whole Presidency, excluding Aden, rose from 67,405 in 1896 to 72,930, the decrease both in the city of Bombay and in Sind being in the less serious offences. In the Mofussil an increase in actual crime under all the important heads testifies to the severity of the distress from scarcity during the year. Murders increased from 182 to 234, dacoities from 317 to 589. The rise extended to all the divisions of Bombay, and was especially remarkable in the central division. Khandesh alone accounted for 234 cases against 108 in 1896.

Robberies increased from 248 to 406, housebreaking from 2,441 to 3,694, thefts from 4,610 to 7,116. In Sind the number of murders rose from 50 to 73, and dacoities from seven to 13, but there were fewer robberies and cases of housebreaking.

Of the total number of cognisable offences, 59,934, or over 82 per cent., were investigated by the police, and of the 58,745 persons who were arrested by the police in connection with cognisable cases 76·9 per cent. were convicted, against a percentage of 82·89 in 1896. In the city of Bombay the police had heavy extra duties in connection with the plague, which would account for the convictions falling off from 93·12 to 89·35.

Non-cognisable offences amounted to 179,632, or 13,830 more than in 1896, the increase being almost wholly confined to the Central Division, Ahmednagar alone contributing 14,095 cases relating to non-payment of municipal taxes.

In the city of Bombay the police force numbers 2,232 officers and men, or one to 452½ of the population. The falling off in the less serious offences was partly due to the absence of persons from Bombay on account of the plague, and partly to the excessive strain put on the police by extra plague duties, to which their ordinary work had to give way.

The railways, upon which a force of 2,121 police is employed, are the Great Indian Peninsula, the Southern Maratha, and the Bombay-Baroda and Central India and Rajputana-Malwa Railways.

Coorg. The police force for the protection of this small province, which has an area of 1,582 square miles, amounted to 226 officers and men, or one to nine square miles, and 995 persons. Only 174, however, were actually engaged in the

prevention and detection of crime. The convictions rose from 52 to 55 per cent. of the persons arrested. CRIME AND POLICE.

The conduct of the police was not as satisfactory as could be wished, but it is explained that owing to the low rate of pay it is difficult to get suitable recruits. The force was maintained at a total cost of Rx. 3,088.

CRIMINAL JUSTICE.

The total number of offences reported in Bengal during the year increased from 351,882 to 355,448, offences against property showing a large increase, mainly due to the famine. There was also a considerable increase in rioting, and the question of preventive and police measures in Calcutta and its neighbourhood was under consideration. There were 373 murder cases which were returned as true, and the conviction of 137 persons was a distinct improvement on that of 134 persons in the preceding year, when there were 406 true cases. Calcutta continues to show a large increase in reported crime, the figures having increased steadily from 39,558 in 1894 to 53,166 in 1897, or nearly 33 per cent. in three years. The total number of cases brought to trial rose from 197,837 to 203,730, and the number dismissed on complaint fell from 44,975 to 42,029; 274,182 persons were tried for all offences, against 265,231 in 1896, but the percentage of convictions fell from 66·1 to 65·8. CRIMINAL JUSTICE. Bengal.

At the close of the year there were 424 stipendiary magistrates of varying powers, including the district magistrates, and 2,003 honorary magistrates, excluding in both cases Calcutta. The former disposed of 166,356 cases, reducing the number undisposed of at the close of the year from 4,380 to 4,196. The latter tried 49,571 cases. The average duration of each case in the courts of the several classes of magistrates rose from nine days to 9·6. Taking into consideration the additional work caused by the famine and scarcity which prevailed over many districts, the outturn of criminal work was creditable.

The number of cases committed to the courts of sessions, or referred to the sessions' judges, rose from 1,755 to 1,875, and the number tried from 1,711 to 1,835, leaving undisposed of at the close of the year 324, against 305 in 1896. The average duration of trials rose from 48·1 days to 50·2 days, while the percentage of persons convicted to the number tried fell from 61·6 to 59·9.

The number of persons tried by jury rose from 593 to 848. The sessions judge agreed with the verdict of the jury in respect of 796 persons, and differed from it in respect of 52, the percentages being 93·8 and 6·2 respectively. The number of persons tried with the aid of assessors was 2,412.

The number of appeals before the High Court from the various criminal courts of the province, including those pending, rose from 946 in 1896 to 1,073, and the number decided from 854 to 1,009. The judgment of the lower courts was affirmed in 759 cases, reversed in 67, and modified in 175; the percentage of appeals in which the judgment of the lower court was affirmed to the total number of appeals decided was 75·2, against 82·6 in 1896. Appeals to sessions judges rose from 7,800 to 8,706, while those to district magistrates fell from 5,694 to 5,636. The percentage of decisions confirmed to decisions appealed against fell in the case of appeals to sessions judges from 51·77 to 50·86, and of those to magistrates from 61·58 to 60·42.

A large increase in the number of sentences to whipping, from 2,266 to 4,030, was probably due to the large number of petty offences against property during the year. In 1896 the number of persons sentenced to imprisonment by magistrates outside Calcutta and by courts of session was 27,560 and 1,648 respectively. In 1897 the numbers were 34,499 and 1,829, and the sentences generally were more stringent.

Although the North-West Provinces and Oudh have, for legislative purposes, been united, Oudh remains technically a "non-regulation province," and its judicial statistics are separately presented. North-West Provinces.

CRIMINAL JUSTICE

In the North-West Provinces 145,663 offences were reported, of which 120,061 were returned as true, and 108,229 were brought to trial. In spite of the famine, the number of offences reported was only a few hundred more than in 1896, but there was a satisfactory improvement in the number found true and brought to trial compared with 1896. The proportion of persons convicted to those brought to trial rose from 56 per cent. in 1896 to 61 per cent. in 1897, theft and hurt being the offences with which 55,229, or one-third, of the 169,241 who were brought to trial were charged, this proportion being the same as in 1896.

Of 107,373 cases disposed of in the several classes of magistrates' courts, 19,772 cases, or about 17 per cent., were tried by honorary magistrates, who continue to render efficient assistance to the administration. The average duration of cases in all the magistrates' courts was reduced from 7·2 to 6·4 days, a creditable result in a year when, besides having an increased number of criminal cases to deal with, magistrates were hard worked in connection with famine relief.

Sessions judges, with the assistance of two additional judges for part of the year, disposed of 2,921 out of 3,184 cases for trial, the corresponding figures for 1896 being 2,366 and 2,705, and they reduced the list of 308 cases pending at the close of that year to 235 at the close of 1897.

Sentences to death increased from 88 to 152, and to transportation from 332 to 573. A considerable rise in the number of short-term sentences was due to magistrates passing light or nominal sentences in the case of hungry offenders, and a similar increase of long-term sentences is accounted for by the serious outbreaks of dacoity in several districts with which the Sessions Courts had to deal. Whipping (the punishment of juveniles and first offenders) was inflicted in 17,187 instances, or 38·40 per cent., of possible cases, being an increase of 54·5 per cent. compared with 1896. It is generally recognised that this form of punishment is preferable in such cases to short terms of imprisonment; 94 per cent. of the sentences were in lieu of other punishment; 91·9 were on first convictions.

Of 18,062 appeals during the year, 3,872 were to courts of magistrates, 12,420 to Courts of Session, and 1,770 to the High Court, and the numbers disposed of were respectively 3,854, 12,543, and 1,687, after an average duration of 14, 16, and 32 days. The sentences appealed against in the several classes of court were upheld against 67·5, 79·8, and 84 per cent. respectively. In the Courts of Session the pending file has been reduced from 462 in 1895 to 165 in 1897, and in the High Court from 111 in 1896 to 83.

Oudh.

As in the North-West Provinces, the returns of offences were but slightly heavier than those of 1896, which were the lowest for some years past. The number of cases brought to trial, 40,572 out of 50,765 reported, though exceeding by 3,075 that of the previous year, was lower than that of 1895, when the provinces were free from famine. The percentage of persons convicted to persons brought to trial for offences against the penal code rose from 44 in 1896 to 54 in 1897, and the total percentage of convictions for all offences from 51 to 59. To a greater extent than usual the offences were of a simple description, easily capable of proof, and mainly under the head of offences against property. On the other hand there was a decrease in the number of cases causing hurt, due probably to the population being too much occupied in the struggle against famine to bring their petty grievances into court.

With a larger number of cases to dispose of, the number of cases pending at the close of the year was smaller than in 1896. The percentage of convictions in magistrates' courts rose from 50 to 59, though with honorary magistrates, who disposed of 21 per cent. of the total number of cases, the percentage of convictions fell from 59 to 23. Sessions judges, including two additional judges who were employed for part of the year, disposed of 706 cases, against 656 in 1896, and reduced the number of cases pending from 108 to 67.

Appeals to the Court of Session increased from 3,854 to 4,328, and the proportion in which the sentence of the Lower Court was modified or reversed was reduced from 23·7 to 17·6 per cent.

In the Judicial Commissioner's Court the work was the heaviest since 1891; appeals, 955, were nearly 59 per cent. more numerous than in 1896, the

sentence being upheld in 83 per cent. of the cases as compared with 78 per cent. in 1896. CRIMINAL JUSTICE.

Though in the Punjab the total number of reported and admitted offences fell from 192,652 and 133,232 respectively in 1896 to 187,084 and 128,880 in 1897, serious crime was more prevalent than in any of the preceding five years. This, as a rule, was due to the special circumstances of the year; the magistrates, from the same cause, having less time and inclination, and the people less desire, for prosecutions under local and special laws. In Umballa there is said to be a growing tendency on the part of petition writers to try and turn civil suits into criminal cases, and to lend as grave an aspect as possible to every complaint. In the new colony on the Chenab Canal, a considerable increase of violent crime is attributed, in part, to difficulties in making the administration keep pace with the large increase in population. After Simla, where the offences of all kinds were 61 per thousand of the population, the district with the worst record is Kohat, with 11 offences per thousand. Punjab.

The number of complaints under the Penal Code dismissed after reference to the police has diminished in four years from 10,226 to 8,128, showing either that the magistrates send fewer cases to the police for preliminary investigation, or that the police succeed in finding a greater proportion of the complaints sent to them to be true.

The worst feature of the report is the steady increase in the number of murders. In 1897 there were 655, or 24 per cent. above the average for the preceding five years. While in Ferozpur there was a decrease from 48 in 1896 to 27 in 1897, and in Bannu from 67 to 48—in Jhelum, on the other hand, murders increased from 24 to 35; in Kohat, from 27 to 37; in Rawalpindi, from 51 to 60; and in Peshawur, from 95 to 133. The large increase in the last instance was mainly due to the disturbed state of the border, but partly also to a change in the system of enumerating murders, the death of each person, where more than one is killed, being now treated as a separate murder.

In the last three years prosecutions under the Forest Act have fallen from 976 to 372, owing, no doubt, to large tracts having been thrown open to grazing, and to a feeling on the part of officers that leniency should be shown in a time of agricultural distress. Similarly, there were fewer persons convicted than in 1896 under the Canal and Drainage Act and the Cattle Trespass Act.

Convictions in Magistrates' Courts fell to 30 per cent. of the number of persons disposed of, this being the lowest figure recorded since 1890; and the pending file at the end of the year was unduly large. A diminution in the number of cases tried by district magistrates in Lahore, Ferozpur, and Rawalpindi is accounted for by the increasing burden of district work causing the transfer of many of their cases to the Sessions Courts. For this reason mainly, the cases disposed of by those courts increased from 476 to 611; on the other hand, the percentage of convictions fell from 60 to 46; in murder cases the ratio was 31 per cent. only.

With regard to punishments, sentences of death were passed by the Sessions Courts in 146 cases, and confirmed by the Chief Court in 112. In 1896 only 69 such sentences were confirmed out of 130. There was a satisfactory decrease in sentences of fine with or without imprisonment, and an equally satisfactory increase in the number of sentences of whipping, a punishment which is not imposed as being a more severe punishment, but as being more appropriate in a large number of cases.

The number of persons who appealed (21,883) represents a fall in the percentage of actual to possible appeals from 38 to 28. Of these, 11,787 appealed to District Magistrates, 9,068 to Sessions Judges, 1,028 to the Chief Court; the numbers in 1896 having been 13,502, 8,336, and 863 respectively. In the District Courts the number of unsuccessful appellants was 59 per cent. of the whole; in the Sessions Courts it was 65 per cent. In the Chief Court the proportion of nearly 72 per cent. of unsuccessful appellants was attributed by the judges to improved working on the part of the police.

The number of cases in Burma which were returned as true increased from 64,295 in 1896 to 66,572, mainly owing to the large number of petty prosecutions in Rangoon, where, on the other hand, there was a satisfactory diminution of serious crime. Burma.

Criminal Justice. The proportion of offences found on investigation not to be true increased both in Upper Burma and Lower Burma, in the former from 5·7 to 10·2 per cent.

The number of cases brought before the tribunals rose from 65,728 to 68,623. Of 114,497 persons under trial, 70,359, or 63·21 per cent., were convicted. Much assistance was rendered by honorary magistrates in Lower Burma, especially at Rangoon, Mandalay, and Moulmein. In Rangoon the proportion of convictions rose to 74·83; but with this exception convictions fell off somewhat, the net result being, as stated, 63·21 per cent. for the whole province, and for several districts much less.

Of the 70,359 who were convicted, 51,133 were sentenced to fines amounting in the aggregate to Rs. 56,849, of which 83·48 per cent. was realised; 13,119 to rigorous imprisonment, and 3,711 to whipping.

The Recorder of Rangoon, sitting as a court of session, tried 28 persons, of whom 24 were convicted. In other Sessions Courts of Lower Burma 722 persons were tried, of whom 497 were convicted. Sessions Courts in Upper Burma tried 175 persons, and convicted 115 Appeals decreased considerably in Lower Burma, and increased slightly in Upper Burma, the proportion of unsuccessful appeals in the former being 74·81. The number of criminal appellants whose cases were disposed of by the Judicial Commissioner, Lower Burma, was 622, and by the Judicial Commissioner, Upper Burma, 166, against 586 and 136 respectively in 1896.

Central Provinces. Reported cases in this province increased from 32,063 in 1896 to 35,428, and the number of true cases from 29,106 to 33,611, or 94·8 of the cases reported, a proportion which has not been exceeded in 10 years. The increase in crime was practically confined to cases cognisable by the police, and the great bulk of it was petty.

An addition of seven third-class magistrates increased the number of stipendiary magistrates to 152; and there were 251 honorary magistrates, a decrease of four. Of 61,310 persons brought before the magistrates for trial 41,878 were convicted or committed, the proportion of convictions being 68·3 per cent, against 61·6 in 1896. This improvement indicates the simple character of the cases; and it is probable that petty crime was often committed for the sake of the shelter and food to be obtained in jail.

The number of persons punished in Magistrates' Courts increased from 30,429 to 39,791, or 37 per cent. in the year. Punishment with fine decreased 16 per cent. Sentences to whipping increased 13 per cent., and imprisonment 3 per cent.

The four sessions judges (who are the Commissioners of Division) were assisted by three additional judges. The number of persons disposed of in the Sessions Courts increased from 341 to 610, but the percentage of convictions fell from 73·9 to 64·4.

The number of appeals disposed of during the year by District Magistrates was 1,070, by Courts of Session 1,838, and by the Judicial Commissioner 314.

Assam. Reported offences in Assam fell from 32,047 to 29,384, of which 21,773 were accepted as true, the proportion, 76·4, being the same as in 1896. The decrease occurred chiefly in the districts where the earthquake was felt most severely. Where there was an increase, as in Goalpara, it is attributed to the incursion of famine-stricken people from other districts. Of Sylhet it is remarked that for two months after the earthquake the people were too much concerned with looking after their own affairs to seek redress against petty wrongs in the courts.

Murders increased from 35 to 41, in respect to which 17 persons were convicted; dacoity, from eight cases to 11; theft, from 1,245 to 1,539. As for the rest of the offences amenable to the Penal Code, there was a general diminution; the same being the case with offences under special or local laws.

In the 13,867 cases which were brought to trial, 22,005 persons were implicated, of whom 12,646 or 59·4 per cent. were convicted, representing 1 in 393 of the population.

Berar. The number of Criminal Courts open during the year was increased from 68 to 77, and there was a corresponding increase of criminal business, the number of offences brought to trial being 15,874 as against 13,868 in 1896, a rise of

2,006, or 14·4 per cent. Of the 29,554 persons who were concerned in the cases for disposal during the year, 29,137, or 98·5 per cent., were dealt with, 13,781 being discharged and 13,402 convicted; 20 were sentenced to death, 17 to transportation, and 3,395 to imprisonment; 7,585 were fined, and 3,711 were sentenced to be whipped. Offences affecting the human body decreased from 5,349 to 4,357, but offences against property increased from 2,750 to 5,172, or 88·1 per cent. CRIMINAL JUSTICE.

The average duration of cases disposed of was 9·5 days, against 8·4 in 1896. The number of witnesses was 57,403, of whom 74·2 were detained for one day only, 17·8 for two days, 5·2, for three days, and 2·8 for more than three days.

Thirty-eight cases, involving 103 persons, came before the Sessions Court in its original jurisdiction in 1896; in 1897 there were 72 cases, involving 162 persons, of whom 143 were disposed of. The percentage of convictions rose from 57·1 to 62·2, and that of acquittals fell from 41·7 to 36·4. The average duration of sessions cases rose from 51·8 days in 1896 to 54·9 days in 1897.

The number of appeals for disposal before the Courts of the Judicial Commissioner, the Civil and Sessions Judge, and the Deputy Commissioners, rose from 1,057 to 1,478, or 39·6 per cent., of which all but 74 were disposed of during the year.

In Madras City criminal jurisdiction was exercised by the High Court, two Courts of Magistrates, and the Court of the Commissioner of Police. In the Mofussil there were 5,666 Village Magistrates' Courts, 20 Courts of Session, and 720 regular Magistrates' Courts. Madras.

The number of offences returned as true was 301,304, or 2 per cent. less than in 1896; 470,418 persons were brought to trial, and the percentage of convictions under the Indian Penal Code was 25·2. The total number of original cases in all the courts (304,798, of which the Presidency town contributed 48,746) was 2,438 less than in 1896, and there were 10,687 appeals, an increase of 577.

The original cases disposed of by the regular magistrates numbered 244,032, affecting 407,411 persons, of whom the rather larger percentage of 46·6 were convicted; and of 8,405 appeals to these magistrates, preferred by 16,828 persons, 8,310 were disposed of; confirmation of the sentences of the lower courts being the result with respect to 49·1 per cent. of the 16,599 persons who preferred the appeals.

Sessions Courts disposed of 1,212 cases, against 1,083 in 1896, and the percentage of convictions rose from 42·2 to 45·7. As courts of appeal they disposed of 1,419 cases, or 308 more than in 1896; the confirmation of the sentences of the lower courts in 76·8 per cent. being a great improvement upon the percentage of 65·4 in 1896.

The Presidency Magistrates' Courts disposed of 48,701 cases, the percentage of convictions, 86·6, being lower than in 1896, when it was 88·5.

The High Court in its original jurisdiction disposed of 46 cases, and adjudicated in 22 cases in which the sessions judges disagreed with the verdicts of juries, and 70 cases in which capital sentences were submitted for confirmation; 68 of the 79 concerned in the latter were convicted, and sentence of death was confirmed with respect to 55.

As a court of appeal the High Court confirmed the sentences of the lower courts in 85·3 per cent. of the 769 appeals which were disposed of during the the year, the figures for 1896 being 596 and 78·1. The court also had 534 revision cases, perused 2,637 calendars, and disposed of 153 miscellaneous petitions.

Criminal jurisdiction was exercised in the Bombay Presidency by the following courts:— Bombay.

Regulation Provinces.

The High Court.
19 sessions judges and joint sessions judges.
4 assistant sessions judges.
18 district magistrates.
4 Presidency magistrates.
116-first class magistrates.
219 magistrates of the second-class.
195 magistrates of the third-class.
15,160 police patels.

CRIMINAL JUSTICE.

Sind.

The Sadar Court.
4 sessions judges.
2 additional or joint sessions judges.
5 district magistrates.
37 magistrates of first-class.
53 magistrates of second-class.
52 magistrates of third-class.

Of the High Court judges, five were Europeans and two natives; of 29 sessions judges and assistant sessions judges, five were natives, two of them being statutory civilians; of 198 first-class magistrates, 122 were natives; of 519 second and third-class magistrates, all but 13 were natives.

The total number of offences reported during the year was 258,610, of which 205,616 were returned as true. In 1896 the corresponding numbers were 263,303 and 226,112 respectively. The decrease occurred mainly under criminal force and assault, hurt and attempts and hurt, and mischief; on the other hand, theft, robbery, and dacoity were more prevalent; also receiving stolen property and offences under special and local laws. The ratio of offences to population varies greatly. Taking the districts in which they were most numerous, the ratio to population was in Bombay, 1 offence to 24, and Surat, 1 to 29, in both cases an improvement on 1896. In Ahmedabad, which was not affected by famine (1 to 36), and Broach (1 to 66), the increase was considerable; Poona was slightly worse than in 1896, with 1 to 66 ; Sholapur, (1 to 73), Kolaba (1 to 100), Canara (1 to 190), Belgaum (1 to 274), and Bijapur (1 to 384), all show a great falling off, and the latter district, which was the least criminal in 1896, gave place to Ratnagiri with 1 offence to 476 of the population.

The total number of persons under trial during the year, including those whose cases were undisposed of in 1896, was 326,862, or 6,877 more than in 1896, of whom 146,686 (about 45 per cent.) were acquitted or discharged, 103,741 (31·7 per cen.) were convicted, and 73,809 (22·8 per cent.) remained under trial at the close of the year; the proportion of acquittals and discharges to convictions in 1896 and 1897 being 63·62 and 64·88 per cent. respectively.

The number of persons brought to trial before the Court of Sessions rose from 2,302 to 4,216, and 169 were brought before the High Court and Sadar Court.

On the appellate side of the High Court there were 30 cases, involving 47 persons, for confirmation of sentence of death, and 12, involving 48 persons, were referred to the court by the sessions judges. Ninety-five persons were involved in these cases, of whom 24 were acquitted and 65 convicted, sentence of death being confirmed as to 41 persons.

The High Court on its original side passed six sentences of death, and 217 persons were sentenced to transportation. The number sentenced to imprisonment rose from 14,801 to 21,972.

Coorg.

The number of reported offences diminished from 3,761 in 1896 to 2,949 in 1897, of which 1,834 were returned as true, and, with 99 cases pending from 1896, were brought to trial, conviction being obtained in 24·70 per cent.

With regard to the rejection of the large proportion of 37·8 per cent. of the cases reported, it appears that 1,487 reported breaches of contract were reduced to 610, and 330 cases of theft to 175. These two heads, therefore, account for 1,032 out of a total of 1,115 cases rejected *in limine*. Every class of offence brought to trial in 1897 shows a considerable reduction in the number of cases compared with the number in 1896. Those against the person fell from 420 to 290; those against property from 504 to 426; other offences under the Penal Code from 504 to 354 ; and though the percentage of convictions on the whole number of cases was rather worse than in 1896, the convictions in the more heinous cases were more numerous.

With respect to the amount of work performed by the several classes of magistrates, it appears that the sessions judge disposed of eight cases; the district magistrate of 108 ; the magistrates with first-class powers of 41 ; the seven magistrates with second-class powers of 1,200 ; the 10 magistrates with third-class powers of 506. The average duration of the trials in all the courts was 15·02 days, against 14·11 days in 1896.

Compared with 62 appeals presented in the District Magistrates' Court and 18 in the Sessions' Court in 1896, the numbers in 1897 were 56 and 8 respectively, of which 6 were rejected; in 22 the sentence was confirmed, against 49 in 1896; in 17 it was modified, against 9; in 19 it was reversed, against 17; and the average duration of appeals rose from 18 days to 27·1. CRIMINAL JUSTICE.

JAILS.

Jails suffered from the adverse conditions of the year in more ways, and to a greater extent perhaps than any other branch of the administration. The scarcity which had begun to be felt before the close of 1896, especially in two provinces, deepened, and spread to other provinces in 1897. Crime marched with want, and filled the jails to overcrowding, in spite of the leniency shown to those whom hunger had driven to petty theft. In Bombay the prevalence of plague added to the difficulties of the situation. The condition of the prisoners on their admission ensured a high rate of mortality. The cost of feeding the jail population was very much greater; the cash earnings of prisoners were very much less. It would appear from observations recorded by the Governments of Madras and Bombay and that of the North-West Provinces and Oudh, that crime was less prevalent, and that the jail mortality was lower in 1897 than in the years when those provinces were last visited by severe famine. In the opinion of the Government of India, the great difficulties which beset the jail administrations were on the whole well and earnestly met. JAILS.

The number of jails and subsidiary jails in British India hardly varies from year to year. There were 40 central jails, as in 1896, 192 district jails, and 494 subordinate jails and lock-ups, of which 303 were in Madras alone.

Scarcity having appeared towards the close of 1896, the jail population, which at the beginning of that year was 101,061, had risen, by more than 8 per cent., to 109,935 at the beginning of 1897, of whom 106,552 were males and 3,382 were females. The number of admissions during the year advanced from 476,180 in 1896 to 568,348, an increase of 17 per cent.; and the daily average from 103,688 to 113,011.

The number of prisoners discharged during 1896 was 467,307, but in 1897 the number was 568,429, exceeding slightly the number of admissions, so that the jail population at the end of the year (109,853) was rather less than when the year began.

The number of convicts in jail on the 1st January 1896 was 94,052; on the same day of 1897 it was 99,597, an increase of nearly 6 per cent. The aggregate number of convicts, excluding transfers, was, during the two years, 276,075 and 314,662 respectively. The increase was shared by all provinces except Burma, Assam, and Coorg. The North-West Provinces and Oudh had the largest increase, 9,740; in Madras the increase was 6,446; in Bombay, 5,673; in Bengal, 9,596; in the Punjab, 2,534; in the Central Provinces, 4,680, and in Berar, 1,458.

The number of convicts released during the year was 172,279 in 1896, and 209,227 in 1897. The increase was largely due to the release of 21,584 prisoners in commemoration of the celebration of the 60th year of Her Majesty's reign. The release of 144,169 on expiration of sentence, an increase of 16,000 compared with 1896, was in accordance with the larger number of prisoners who passed through the jails; 923 prisoners under short sentences, whose crimes were due to hunger, were liberated in the Central Provinces in order to relieve the overcrowded jails. There were 519 executions, an increase of 99, and 4,083 deaths, an increase of 1,593. There remained at the end of the year 101,035 convicts, against 99,589 at the end of 1896.

Of the convicts admitted during the year 51,163 were Muhammadans, 139,292 were Hindus (including Sikhs), 15,680 were Buddhists (including Jains), 1,754 were Christians, and all other classes numbered 7,114. These figures represent more Muhammadans (23·8 per cent.), Hindus (64·7 per cent.), other classes (3·4 per cent.), and fewer Buddhists (7·3 per cent.), and Christians (·8 per cent.).

Classified by age, 2,543 of the convicts on their admission were under 16 years of age, 169,344 were between 16 and 40, 38,977 between 40 and 60,

JAILS.

4,129 over 60 years. Compared with 1896, these figures represent an increase under each period respectively of 849, or 50 per cent.; 2,529, or 17 per cent.; 6,142, or 18 per cent.; and 762, or 22 per cent. The large relative increase in the number of juvenile offenders points to insufficient recourse to the provisions of the law under which they may be released after admonition, or on their parents or guardians becoming surety for their good behaviour.

By the Reformatory Schools Act, which came into force in March 1897, several changes of importance were introduced in reformatory administration. Bengal has two of these schools; Madras, Bombay, North-Western Provinces Burma, and the Central Provinces have one each. At the close of 1897 the number of juvenile offenders confined in them was close on 1,300.

Of the convicts admitted into jail in 1897 those who were able to read and write numbered 8·8 per cent.; 2·7 were able to read only and 88·5 were illiterate. In 1896 the corresponding proportions were 10·7, 3·2, and 86·1 per cent. In both years Burma had the best record, and the North-Western Provinces and Oudh the worst.

Of the 201,187 male convicts admitted in 1897, those who previous to their admission were engaged in agriculture or with animals numbered 109,174, or 54 per cent., this being 13·5 per cent. more than their number in 1896; but the largest proportionate increase was among those engaged in miscellaneous pursuits, their number (44,984) being nearly 34 per cent. greater than in 1896. This is attributed to the pressure of want being most severely felt among the persons whose occupations are unclassified, including daily labourers.

Of the female convicts 8,571 (62·1 per cent.) were married, 4,149 (30·0 per cent.) were widows, 702 (5·1 per cent.) were unmarried, 384 (2·8 per cent.) were prostitutes.

Distributed according to length of sentence, 67,650, or 31·47 per cent. were sentenced to terms not exceeding one month; 41,211, or 19·17 per cent., to not less than three months; 39,411, or 18·33 per cent., to not less than six months; 33,452, or 15·56 per cent., to not less than one year; 18,559, or 8·64 per cent., to not less than two years; 8,836, or 4·11 per cent., to not less than five, and 3,129, or 1·46 per cent., to not less than 10 years; 125 or 0·06 per cent. to more than 10 years; 1,857, or 0·86 per cent., to transportation for life or for a term; and 737, or 0·34 per cent., to death. Compared with 1896 the sentences to imprisonment not exceeding six months were 148,272, or 18·2 per cent. more numerous, and the aggregate of all higher sentences was 66,715, or 17·8 per cent. greater. In the provinces most affected by famine, persons who were driven by want to the commission of petty theft were as far as possible not sent to prison. Of the total number admitted 30,678, or 14·26 per cent., had been previously convicted. The detection of old offenders is greatly assisted by the general introduction of the system of identification by finger impressions.

The average number of convicts who were sentenced to labour rose from 92,054 in 1896 to 98,901 in 1897. Of these, 8·1 per cent. were employed as prison officers, 10·5 per cent. as prison servants, and 38·7 per cent. in manufactures.

Notwithstanding the large increase in the jail population the number of more important offences committed in jails, tried by courts only, increased from 336 to 339. The remarkable variation which appears in the proportion of prison offences to the prison population can only be accounted for on the supposition that the jail administrations have different standards of discipline and methods of reporting offences. This is a matter which has been remarked upon before, and has again been commended to the careful attention of the

Offences dealt with by Superintendents.

	1897.		1896.	
	Daily Average Population.	Offences.	Daily Average Population.	Offences.
Madras - - -	8,635	12,956	8,263	15,436
Bombay - - -	7,760	9,390	7,100	6,150
Bengla - - -	17,366	38,406	15,895	35,548
N. W. P. and Oudh -	33,382	27,452	30,784	17,570
Punjab - - -	11,648	29,965	10,940	33,807
Burma - - -	13,063	37,177	14,031	42,646
Central Provinces -	6,838	7,311	5,196	6,495
Assam - - -	1,371	757	1,391	1,059
Coorg - - -	72	125	87	122
Berar - - -	1,697	1,024	1,344	946
	101,832	164,563	95,031	159,779

local governments. It will be seen that the North-Western Provinces and Oudh, with an average jail population nearly twice that of Bengal, more than twice that of Burma, and three times that of the Punjab, had a lower record than any of the three, and that yet the offences in that province were 10,000 more than in 1896. JAILS.

The punishments are classed as minor and major. The former diminished from 142,951 to 141,148, while the latter increased from 16,829 to 23,415. These were "separate cellular confinement" 6,691 cases, to which 4,278 is contributed by the Punjab alone, where it is said to be the most effectual method of dealing with the class of habitual offenders who are foremost in resisting authority; "penal diet with solitary confinement," 2,711; "fetters," 7,299, a punishment which is in steady use in Bengal (1,568), rose from 300 to 1,140 in Bombay, from 947 to 1,860 in Burma, and from 20 to 833 in Madras; "corporal punishment," 1,634 or ·99 per cent. of the total of all punishments, against 1·09 per cent. in 1896.

The number of convicts who came under the mark system (28,891) was somewhat less than in 1896, owing to the liberation of prisoners at the time of the Jubilee, who would otherwise have earned remission of their sentences during the year. As usual the great majority (78·3 per cent.) of those who earned remission were under sentences not exceeding two years. The maximum remission (1,843 days) was earned by a convict in Burma under a sentence exceeding 10 years. The largest amount earned in 1897 by a convict under a year's sentence was 78 days. Gratuities were paid to convicts in Madras, Bombay, the Punjab, and the Central Provinces. The mark system appears to have a generally beneficial effect on the conduct of the prisoners.

In December 1895 the Government of India circulated to the local governments a resolution advocating the more general adoption of the cellular system. It was decided, after consideration of the opinions received, gradually to adopt, as funds permitted, the system until recently existing in Madras, under which all male prisoners passed a certain portion of their sentence in separate confinement, except those who were under sentence of less than two years, and who were not habituals. The Government of Madras having recently substituted a penal stage for the stage of cellular confinement, no objection was raised by the Government to the experiment being tried in other provinces in place of cellular confinement. The provision of cubicles in sleeping wards has also been urged upon the attention of local governments.

The gross cost of jail administration increase and in 1897 was Rx. 757,728, or 21 per cent. higher than in 1896, representing a rise in the cost of each prisoner from Rs. 60. 8. 6. to Rs. 67. 5. 7. The cost of establishment rose from Rx. 218,981 to Rx. 221,421; that of dieting from Rx. 273,872 to Rx. 390,917, or more than 42 per cent. Saving was effected in the North-West Provinces and Oudh and in the Punjab by the storage of grain in time of plenty. Clothing and bedding charges came to Rx. 35,474. Hospital charges rose from Rx. 31,994 to Rx. 35,528, the average hospital charges of a sick prisoner being highest in Bengal (Rs. 137. 10. 4.) and lowest in the Central Provinces (Rs. 44. 12. 1.).

The cash earnings of prisoners fell from Rx. 134,265 to Rx. 109,393, nearly 19 per cent., the decrease in Madras alone being from Rx. 15,666 to Rx. 4,142; in the Punjab from Rx. 12,728 to Rx. 7,392; in the Central Provinces from Rx. 11,716 to Rx. 5,173. On the other hand the earnings were larger in Bengal, Burma, and Berar. The general causes of the decline were the stagnation of industry, owing to the prevalence of famine and plague, and the weak condition in which many of the prisoners were received in jail.

Deducting the cash earnings of prisoners from the gross cost, the net cost of jail administration during the year advanced from Rx. 490,322 to Rx. 648,333, or over 31 per cent., and the average net cost from Rs. 47. 8. 4. to Rs. 57. 10. 0. The net cost per prisoner was highest in Bombay and Bengal, over Rs. 73, and lowest in Burma, Rs. 34.

The health of the jail population was seriously affected by the abnormal conditions of the year. The number of deaths, 4,462, represents an increase

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of 55·4 per cent. compared with 1896, and a ratio of 39·64 per mille in place of 27·79 per mille. The average death rate was indeed higher in every group of jails except in Assam, where, in spite of hardship and exposure, the result of the destruction of buildings during the earthquakes, the death rate, by more careful attention to the details of jail hygiene, was reduced from 50·98 in 1896 to 48·69 per mille in 1897. In the North-West Provinces and Oudh the number of deaths rose from 951 to 1,286 (28·83 to 35·47 per mille); in the Central Provinces from 401 to 999 (72·11 to 134·98 per mille); in Madras from 187 to 490 (19·51 to 47·45 per mille); but it should be noted that these figures for Madras compare favourably with those of the famine years 1877 and 1878, which were 173·7 and 127·6 per mille, and that if the deaths caused by a severe outbreak of cholera in one jail be excluded, the rate for 1897 falls to 26·75. In the Punjab and Burma the death rate was low, the increase being from 15·68 to 16·30 per mille in the one case and from 18·19 to 24·04 in the other. In Bombay the plague prevented the usual transport of prisoners to the Andamans, and hindered the customary transfers for the relief of overcrowded jails. In one jail, moreover, there was a severe outbreak of cholera. In the Central Provinces, dysentery, mainly the result of the condition of the prisoners on their admission, was terribly prevalent, notwithstanding most careful treatment and dietary, and accounted for nearly half the mortality. To lessen the overcrowding in this province, neighbouring buildings were made use of, and temporary sheds were erected. Material relief was afforded by the release of 1,646 prisoners on account of the Jubilee, and of 923 short term prisoners by the orders of the Chief Commissioner.

CIVIL JUSTICE.

CIVIL JUSTICE. Bengal.

The civil suits for disposal on the original side of the High Court were 1,044 pending at the close of 1896 added to 904 suits instituted during 1897, or altogether 1,948, against 1850 in 1896; 920 suits were decided, and the pending file was reduced to 1,028.

On its appellate side there came before the High Court 8,249 cases. Out of 3,278 first and second appeals from the decrees and orders of subordinate courts 3,148 were decided, the number decided in 1896 having been only 2,506 out of 3,182. The Court also disposed of a large number of criminal cases (2,484) in its appellate and revisional jurisdiction. In cases affecting the lower courts their decisions were reversed or varied in 25·3 per cent. of the appeals from original decrees, in 7·8 per cent. of the appeals from appellate decrees, and in 18·4 per cent. of the miscellaneous appeals; the corresponding proportions for 1896 being, 31·6, 10·3, and 23·2 per cent. respectively. There was, therefore, a distinct improvement in the work of the subordinate courts.

The number of suits instituted in the civil courts subordinate to the High Court has risen steadily in the last five years, from 567,088 in 1893 to 606,360 in 1897, and the number decided from 560,169 to 602,472. Though temporary additional assistance is provided from time to time the pending file grows, and at the close of 1897 was 16 per cent. of the institutions. Of the 94,689 cases so pending, 1,813 were more than a year old, 5,536 more than six months, and 37,807 more than three months.

Of the cases decided by ordinary courts (383,895), 61,550 were suits for money or moveables, 248,376 were suits under the rent law, and 73,969 were title and other suits, the corresponding figures for 1896 being 60,733, 239,817, and 69,501 respectively. The remainder of the suits (218,577) were decided under Small Cause Court Procedure. The percentage of contested cases to the number of suits tried by the two classes of courts was 20·8 and 14·04 respectively in 1897, and 25·1 and 15·5 in 1896. The reduction in contested cases appears to account partly for the larger number of cases disposed of in 1897.

In appellate courts subordinate to the High Court, the number of appeals instituted and determined fell from 19,273 and 23,168 in 1896 to 18,663 and

19,516 respectively, and though the pending file was reduced from 11,046 to 10,898, the number of appeals pending for more than six months increased. The decisions of the lower courts were reversed or modified in 27·7 per cent. of the total number of appeals, a somewhat larger percentage than in appeals heard by the High Court. CIVIL JUSTICE.

In the Presidency small cause court institutions increased from 23,924 to 25,704, and decisions from 24,516 to 26207, leaving the increased number of 1,454 cases pending at the close of the year. Institutions in the provincial small cause courts (13,558) were rather less numerous.

Institutions of civil suits rose by 7,591, to 100,256, of which 73 per cent. were for money or moveable property; the total for disposal from 104,423 to 111,441; and the number disposed of from 94,990 to 102,887, so that the pending files were reduced from 9,433 cases to 8.554, or 879 less than at the close of 1896, and 3,435 less than at the close of 1894. This result was effected with the assistance of additional judges. The proportion of contested suits was 28·4 per cent.; *ex parte* decrees were passed in a larger number of cases, (33·3 per cent.); plaintiffs were successful in 61·3 per cent., showing the continuance of a steady rise from 56·6 per cent. in 1894; the average duration in contested cases was reduced from 79 in 1895, and 71 in 1896 to 61. North-Western Provinces.

The number of appeals for disposal in courts other than the High Court fell from 13,414 in 1896 to 12,948 in 1897, of which 8,217 were disposed of, leaving a pending file of 4,731, which was greater by 502 than at the close of 1896. This falling off was owing to the judges being too fully occupied in sessions work and criminal appeals to devote as much time as usual to Civil appeals. The results of these appeals was somewhat less favourable than in 1896, the per centage of sentences upheld being reduced from 62 to 61.

The High Court had before it 4,172 cases, a decrease of 72; disposed of 2,035, and left a reduced pending file of 2,138. The average duration of the cases decided was 142 days, which is a considerable improvement upon 178 days in 1896 and 246 days in 1895. The results of appeals compared favourably with those of 1896.

In Oudh there was a decrease in the number of suits instituted, from 55,512 to 54,457, and a considerable falling-off in the total outturn of work. Nevertheless the number of pending cases was reduced from 7,428 to 6,265, and the work of the subordinate judges showed a substantial increase. Further measures were taken during the year to relieve the munsifs, who, compared with the subordinate judges, were found to be unduly burdened with work. Oudh.

There were 3,621 appeals for disposal by the judges and subordinate judges, or 70 less than in 1896; of these 2,730 were disposed of, reducing the pending file from 1,260 to 891. The average of work done by subordinate judges was higher, and the average duration of appeals in the courts was reduced from 116·99 days to 96·17. Owing to heavy criminal work the outturn of the district judges was less, though the average duration of appeals in their courts was also improved, from 388·27 days to 356·74.

The results of appeals were less favourable to the decisions of the lower courts than in 1896, the percentages of decrees reversed or modified having risen from 19 to 23.

In the court of the Judicial Commissioner the number of cases for disposal rose from 3,742 in 1896 to 4,292. The disposals, 1,770, were nearly 400 better than in 1896, but the pending list at the close of the year stood at the increased figure of 2,522. To meet the increasing work of the court it was necessary to appoint a second additional Judicial Commissioner.

Civil suits in the Punjaub, which fell 3·8 per cent. in 1896, fell again 4 per cent. in 1897, notwithstanding good harvests and the cessation of the distress; but the decrease was entirely under the head of suits for money or moveable property not exceeding Rs. 50 in value, other classes showing an upward tendency, and the average value of all suits, which was close on Rx. 10, was higher than ever before; the total value being about 6 per cent higher that in 1896. Of 278,116 suits for disposal in the District Courts, 254,723 were disposed of, and the pending file, which has risen steadily in the last five years, stood at 23,393 Punjab.

CIVIL JUSTICE.

at the close of the year. Of the contested cases 76 per cent. were decided in favour of the plaintiff. A gradual rise in the average duration of contested cases (in 1897 it rose to 39 days) is thus accounted for:—"Owing to the "growth in numbers of the members of the bar, competition among them is "very keen. Their fees have fallen to an extent that would be ridiculous if it "were not so lamentable. Consequently parties are represented by pleaders "in very many more cases than formerly, and this lengthens the proceedings. "Changes among officers appear to be more frequent than they were, and each "time a change takes place a certain amount of delay is inevitably caused in "the disposal of cases left pending. It cannot be said that the general rise "in the duration of cases is due to any dilatoriness on the part of "officers."

The appellate business of the Chief Court increases beyond the powers of the five judges composing it to keep pace with it. Of 3,003 suits before the court 1,216 were disposed of, leaving an increased pending file of 1,757 suits. Even with the appointment of a sixth judge recently the reduction of this list can only be very gradual.

Burma.

Against 48,952 civil suits instituted in Burma in 1896 the number in 1897 was 50,995. The increase was almost entirely in Lower Burma, where the total, 37,686, was larger by 1,833, and was distributed over all classes of suits, the bulk of the increase being in township courts and relating to immoveable property.

The total value of suits in Lower Burma rose from Rx. 575,197 to Rx. 623,739, and the average value from Rs. 160 to Rs. 166, a fact which, with the rise in the number of suits, is attributed to the favourable rice market of 1897, following a period of depression. A similar increase in Upper Burma is attributed to the rise in the value of land, owing to the extension of irrigation works. The scarcity in certain districts of Upper Burma seems to have little affected the course of civil justice there. The total value of suits increased from Rx. 150,354 to Rx. 162,434, and the average value from Rs. 115 to Rs. 122.

Of 51,122 suits disposed of in the province, 10,228 were decided without trial and 23,015 more without contest. In the contested cases judgment was given for the plaintiff in whole or in part in 12,196, or 69 per cent., the percentage in 1896 being 71. Execution proceedings were more successful, and realisations better; these results were obtained with a much smaller number of attachments and sales.

Original and second appeals increased somewhat in both Upper and Lower Burma, and in the latter the percentage of confirmation fell slightly.

The publication of the Digest of Buddhist Law was nearly completed.

Central Provinces.

At the close of 1897 there were 224 civil courts in the Central Provinces, or two more than at the beginning of the year. The number of suits filed fell from 98,791 to 91,739, this figure being less than in any year since 1883, when the marked increase in civil litigation began. The decrease is most marked in suits of Rs. 50 and under, and indicates that famine prices are opposed to the luxury of litigation. Suits for arrears of rent also diminished considerably, probably because the large suspensions of revenue granted were conditional on a similar suspension of rent by the landlords. A considerable increase in the average duration of cases, and a very slight increase in the average number of hearings were to be expected in the peculiar circumstances of the year, when every official had more work than he could do, and all branches of work had to give way to the paramount claims of famine relief.

The total number of appeals disposed of was 6,637. The number pending at the close of the year was reduced from 277 to 60, and the average duration of each appeal from 304 days to 118. Applications for execution of decrees fell from 100,592 in 1896 to 92,120, and the amount realised from Rx. 144,303 to Rx. 125,948.

Assam.

The number of civil suits in Assam diminished from 30,352 to 27,781, the decrease being shared by all districts, except Lakhimpur. The decrease in Sylhet attributed to the effects of the earthquake; in the Assam Valley to the same cause, and to unusual floods and high prices of food superadded; in Cachar, to fever and high prices. Nevertheless, the total value of the suits rose from

Rx. 222,836 to 242,982, and the average value from Rs. 73 to Rs. 87. Of 28,108 suits disposed of, 22·1 per cent. were contested, a smaller number than in any year since 1893, and plaintiffs were successful in 59·3 per cent. CIVIL JUSTICE.

Fewer appeals were instituted in the Appellate Courts of Assam; the number decided rose from 837 to 1,104, and the pending list was reduced from 1,008 to 716. The ratio of actual to possible appeals was 23·98 per cent., against 20·89 in 1896; the decrees of the lower courts were confirmed in 69·5 per cent.

Fifty-four appeals were preferred to the High Court of Calcutta; of the 79 appeals decided by that tribunal, 52 resulted in the confirmation of the decrees of the lower courts.

The number of officers employed on civil work at the close of 1897 was 40, or two less than in 1896. The number of suits instituted in 1897 was 23,840, showing a decrease of 3,309, or 12·2 per cent. Including 6,512 cases pending from 1896, the total number for disposal in 1897 was 31,101, a decrease of 7·4 per cent., and of these 25,282, or 81·3 per cent., were disposed of, leaving a diminished balance of 5,819. Of the suits instituted, 19,965 were for money or moveable property, a decrease of 3,068, or 13·3 per cent., compared with the previous year. The aggregate value of the suits disposed of was Rx. 404,469, an increase of 1·04 per cent., representing an average value of Rs. 164. Of the total number 73·3 were uncontested, and 26·3 were contested. The average duration of the former was 80·4 days, and of the latter 169·7. In 1896 the averages were respectively 69·1 days and 138·7. The total income realised from fees was Rx. 44,055, as against Rx. 49,963 in 1896. Including 449 cases pending from 1896 there were 1,608 appeals for disposal in 1897, as against 1872 in 1896, and 1,202 were disposed of. Berar.

Besides the Presidency Court of Small Causes, the City Civil Court and High Court in the Presidency Town, there were in the Mofussil 4,388 Village Courts, 71 Revenue Courts, a Cantonment Court of Small Causes, 136 District Munsifs' Courts, 22 Subordinate Judges' Courts, and 23 District Courts. Madras.

The number of original suits instituted in all the courts increased from 335,980 in 1896 to 362,512, and that of appeals from 11,069 to 12,171.

The suits instituted in the Village Courts (94,908) were more numerous than in any previous year, and the number of suits disposed of in those courts increased from 85,541 to 93,949. Those instituted in the regular courts in the Mofussil increased from 227,826 in 1896 to 242,322, of which 86.74 per cent. was contributed by the District Munsifs' Courts; 8·54 by the Subordinate Judges' Courts, and 0·51 by the District Courts.

The same courts disposed of 243,115 suits and 11,451 appeals as against 232,217 suits and 9,171 appeals in 1896. The number of suits filed and disposed of in the Presidency Court of Small Causes increased from 21,445 and 21,701 to 24,574 and 24,436 respectively. In the City Civil Court, 381 suits were filed, and 434 disposed of.

On the original side of the High Court, the number of suits instituted increased from 258 to 327, and of 502 suits in all for disposal 375 were settled, of which 129 were contested. On the appellate side the suits received and disposed of were 2,052 and 1,808 respectively in 1896, and 2,671 and 3,041 in 1897. The proportion of sentences confirmed was 69·30 per cent. as against 55·10 in 1896. The surplus of the Civil and Criminal Courts was Rx. 145,937.

The number of 178,079 suits instituted in all the Civil Courts in 1897 represents a falling off of 16,585, compared with 1896, and the aggregate value of the claims involved fell from Rx. 4,450,000 to Rx. 3,690,000. The decline was greatest in suits for money or moveable property. With the exception of the High Court, in which the value of claims rose by Rx. 444,000, all the courts shared in the decrease. Bombay.

The number of suits disposed of was 176,927, and shows a decrease of 26,141, which was shared by all but the Revenue Courts. Cases undisposed of at the end of the year rose from 31,107 to 34,166. There was an increase in the average duration of suits which was general, except in the courts of the Cantonment magistrates.

There were 11,394 appeals, of which 6,665 were disposed of.

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Applications for execution of decrees fell from 263,365 to 217,035, and the sum recovered by all the courts in execution of proceedings from Rx. 457,582 to Rx. 407,688.

Coorg.

The total number of suits instituted during the year was 3,038, or about 600 less than in 1896. Including 306 suits pending from that year, the total number for disposal was 3,344 of which 3,128 were disposed of during the year, 404 without trial, 2,152 without contest; in 438 cases judgment was for the plaintiff, and in 134 for the defendant. The average duration of suits disposed of was 74 in contested, and 35 in uncontested suits, as compared with 65 and 33 days in 1896.

There were 76 appeals, including 12 pending from 1896, of which 41 were disposed of by the 1st Assistant Commissioner, and 30 by the District Judge; 63 of them were contested, the sentences being confirmed in 32 cases, modified in nine, reversed in 16, and six were remanded.

Working of the Dekkan Agriculturists' Relief Act, XVII. of 1879.

The number of suits instituted in the four districts of Poona, Satara, Ahmednagar, and Sholapur, which are subject to the operation of the Dekkan Agriculturists' Relief Act, fell off 25·8 per cent. in 1897, the diminution being ascribed partly to the prevailing scarcity and partly to the prevalence of plague in several places.

The number of conciliation agreements and of institutions before the village munsifs also decreased; and, owing mainly to the difficulty of serving processes on defendants whom plague or scarcity had driven from their ordinary residences, and partly, also, to the extra work imposed on some of the subordinate judges, the average duration of suits was considerably longer.

The experience of 18 years is said to justify the opinion that the operation of the Act has had a beneficial effect on the relations between the money lenders and the ryots, and has led to the gradual acquiescence by the former in lower rates of interest than are willingly accepted elsewhere.

IV.

REGISTRATION.

REGISTRATION. General.

In a previous Statement was given a short account of the Registration Law. It will suffice to say here that the law makes compulsory the registration of all non-testamentary documents affecting immovable property of the value of Rx. 10 or upwards, while it permits the optional registration of other documents. Officers are established in every district for the registration of documents, and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. At the end of 1897–98 there were in British India more than 2,000 registration offices; the total number of documents registered during the year was 3,051,000, or 5 per cent. more than in 1896–97; this total does not include the 180,553 registrations under the Dekkhan Agriculturists Act. The total registration fee receipts of the year 1897–98 were Rx. 485,000, as compared with Rx. 455,000 in the preceding year; and the cost of the registration offices was Rx. 248,000, leaving a surplus of Rx. 237,000, against Rx. 189,000 in the year 1896–97. It is claimed for the Indian registration system that it operates to prevent fraud, as well as to secure and simplify titles.

Bengal.

The number of registration offices in Bengal increased from 408 to 423; the total number of documents registered rose from 1,312,153 in the year 1896–97 to 1,437,964 in the year 1897-98, or more than 9 per cent.; but the aggregate value of the property represented by the deeds was lower by 12 per cent. The increase occurred under documents of which registration is optional, as well as under those for which it is compulsory, and was attributed to the hard times caused by famine and dearness of food. There was a slight decrease at Calcutta, ascribed to dullness of trade. Nearly 87 per cent. of all the documents brought for registration related to immovable property. The number of registered transfers of holdings by ryots (tenants), paying at fixed rates or enjoying occupancy right, rose from 189,174 in 1896–97 to 263,062 in 1897–98; the transfer was made in 183,921 cases to other ryots, and in 31,037 cases to money-lenders. The average price of occupancy holdings was equal to nearly 17 years' purchase of the rent. The number of ceremonies registered under the Muhammadan Marriage Act fell from 23,380 in 1895-96, the highest number since the law was passed, to 19,685 in 1896–97, and to 17,902 in 1897–98. The fall, which occurs chiefly in marriages, is ascribed to the high price of food grains; but the popularity of this registration does not seem to have been increasing. The Act was extended to one additional district, and is now in force in 30 districts, as compared with 29 districts in the year 1896–97; and 15 new offices for registering such marriages were opened in the year.

Registrations under the Bengal Land Records Maintenance Act of 1895 began during 1896–97 in parts of three Behar districts, and in a small part of Midnapore, but during 1897-98 nothing was done in Midnapore, and the operations in Bettiah and Muzaffarpur did not show a satisfactory increase. In one office only was there a surplus of receipts over expenditure, *i.e.*, in Mahnar, where there were 14 mutations per village. The number of transfers of holdings were found to be generally three times as numerous as successions. It is too early to say that the Act has failed, but it is not working satisfactorily at present. The causes assigned are the nature of the fees, the absence of compulsion to register, and certain points in which further experience of the working of the Act may effect a change. The desire to register holdings is believed to exist, if the facilities are offered in an acceptable way. The subject is under discussion.

North-Western Provinces and Oudh.

The number of registration offices in the North-Western Provinces and Oudh fell from 291 to 290, and the total number of documents registered fell from 248,973 to 230,042. The variation was largest under documents

REGISTRATION.

for which registration was optional. There was an increase of 5 per cent. in the registration receipts as compared with 1896–97. The surplus of receipts over expenditure was Rx. 18,400, compared with Rx. 21,900 in the previous year. The number of mortgages registered showed a decrease of 9 per cent. as compared with the preceding year; the number of leases alone showed a slight increase. The number of documents relating to movable property, for which registration was optional, fell from 48,828 in the previous year to 42,208 in the year 1897–98. The total value of the property regarding which documents were registered during the year was Rx. 9,466,000, as compared with Rx. 9,434,000 in the previous year. Twelve prosecutions for breach of the Registration Law were instituted, as compared with nine in 1896-97; in eight cases the accused were convicted and punished.

Punjab.

The number of registration offices in the Punjab was 293, or four more than at the end of the previous year. The total number of documents registered was 172,246, or 2 per cent. above the total of 1896–97, and 38 per cent. above that of the previous year. The fee receipts do not show a proportionate increase, being Rx. 41,804, against Rx. 41,660 last year, owing to the introduction of a lower scale of fees for deeds registration of which is compulsory. The surplus fell from Rx. 26,720 to Rx. 26,630. The increase of registration business, following after a previous year of increase, was attributed to the pressure caused by the scarcity in the early part of the year, to the anxiety of moneylenders to realise securities, and to the increased prosperity of agriculturists; the increase was most marked under the head of both compulsory and optional registrations of mortgages of agricultural land, while those of sales of land decreased in number. The proportion of optional registrations of immovable property was only 30 per cent. of the total transactions, and the increase occurred entirely in documents of which registration was compulsory. The total value of property to which registered documents related was Rx. 6,061,000, or Rx. 130,000 less than in the preceding year.

Burma.

The number of registration offices in Lower Burma was 110, as in the previous year; the number of registrations increased from 15,183 in the previous year to 15,682. The figure is still below that of 1895–96, owing to the state of the money market and to the temporary depreciation of property in Rangoon, where the number of documents registered fell from 2,138 to 1,719. Leaving Rangoon out of account, there was a fair increase, which occurred chiefly in compulsory registrations. The aggregate value of all property registered was Rx. 1,759,000, or 15 per cent. less than in 1896–97; outside Rangoon the aggregate value rose by 16 per cent. The fee receipts rose to Rx. 5,571, or 5 per cent. above the income of 1896–97. The surplus of receipts over expenditure was Rx. 3,036, against Rx. 2,845 in the previous year.

Registration offices were open in Upper Burma only for the compulsory registration of documents relating to immovable property; the number was 49, as compared with 31 in the year 1896–97; the number of documents registered was 5,045, as compared with 4,268 in the previous year; the value of the property concerned rose from Rx. 264,000 to Rx. 278,000. The chief increase was under the head of "mortgages." In both Upper and Lower Burma the majority of registered deeds continue to be sales and mortgages of land; but the whole registration business is still small.

Central Provinces.

The number of registration offices was 90, as in the previous year, and the number of documents registered during the year in the Central Provinces was 36,975, or 6½ per cent. less than in 1896–97. The decrease was mainly under compulsory registrations, mortgages showing a large fall. The general decline in registrable transactions, as compared with the increase which occurred in 1896–97, which was also a year of distress, is ascribed to the liberal suspensions of rent and the grants from the Famine Relief Fund, together with the good autumn crops of 1897. The value of the property concerned was Rx. 1,275,000, a decrease of nearly 10 per cent. as compared with the previous year. Of the documents registered 79 per cent. were of classes for

which registration is compulsory. The cost of the Registration Department was 36½ per cent. of the receipts, and the net revenue was Rx. 8,360, as compared with Rx. 9,400 in the preceding year. REGISTRATION.

In Assam there were 26 registration offices, one more than in the previous year, a sub-registry being opened at Katigora; 39,370 documents were registered, or 3·7 per cent. less than the total of the preceding year. The decrease was mainly in documents of which the registration is compulsory, and occurred chiefly in Sylhet. The value of the property registered rose from Rx. 681,000 in the previous year to Rx. 700,000. The fee receipts were Rx. 5,076, and the expenditure was Rx. 2,900, leaving a surplus of Rx. 2,176. Assam.

The marriages registered under the Muhammadan Marriage Act were 305, as compared with 345 and 357 in the two preceding years; the number of these marriage registrations in Assam, after increasing for several years, has now fallen; and the Act is reported to be not popular among the Muhammadans of Cachar and Sylhet.

The number of registration offices in Berar was 69, or one more than at the end of the previous year; the number of documents registered was 37,190, or about 2 per cent. more, the rise being chiefly in the optional class. The value of the property registered was Rx. 1,072,000, or 1 per cent. less than in the preceding year; the fee receipts increased very slightly; the expenditure increased 4 per cent., the surplus falling from Rx. 4,000 to Rx. 3,800. Berar.

Two new registration offices were opened in Madras, bringing up the total to 425. The number of documents registered was 884,123, showing an increase of 7 per cent. compared with the previous year, and of 1 per cent. as compared with the year 1892–93, when the number of registrations was the largest on record. The increase occurred mainly in the river-irrigated districts, and is partly ascribed to the abnormal demand for food grains, causing greater commercial activity; partly also to the more favourable state of the money market, and to the failure of the north-west monsoon. In the Deccan there was a decrease. Instruments compulsorily registrable accounted for 77 per cent. of the increase, and nearly 68 per cent. of the total amount. Nearly 94 per cent. of all the registrations in Madras concerned immovable property. The total value of the property concerned in all the registrations was 19⅓ millions, against 17½ millions of Rx. in the preceding year. The registration receipts were Rx. 152,200 as compared with Rx. 120,300; the expenditure was Rx. 94,800; and the surplus was Rx. 57,366, or 150 per cent. more than in the previous year. The number of documents of which registration was refused rose from 1,680 to 2,030; of this latter total 453 cases were due to denial of execution, 557 to non-appearance of executants, 518 to unwillingness to complete registration, and 212 to minority of executants. The system of taking thumb impressions is being extended with satisfactory results. Madras.

The number of registry offices in Bombay was 252, or one more than in the previous year. The number of registrations was 190,794, or 4·5 per cent. less than in 1896-97. The decrease took place entirely under compulsory registrations, which formed nearly 86 per cent. of the whole number. Registered deeds of sale and mortgages of immovable property numbered 63,918 and 78,872 respectively, being in each case a little below the corresponding figure for 1896-97. The value of the property affected was Rx. 9,051,000. The gross receipts were Rx. 53,157. The registration surplus of the year, including Rx. 2,028 under the Joint Stock Companies Act, was Rx. 28,041, as compared with Rx. 31,814 in the year 1896-97. Bombay.

Under the special law for the protection of Dekkhan agriculturists in the four districts of Poona, Satara, Ahmadnagar, and Sholapur, there were 180,553 registrations, or nearly 18 per cent. above the total of the previous year. Of the registered sales, leases, and mortgages of land, 45 per cent., a somewhat smaller proportion than in 1896–97, were between agriculturists on both sides, and 55 per cent. between agriculturists and money-lenders. The aggregate value of property concerned in these special registrations was Rx. 923,000, or 12 per cent. larger than in the previous

REGISTRATION.

year. There was an increase of nearly 14 per cent. in the fee receipts; and the net surplus on these registration proceedings was Rx. 239, as compared with a deficit of Rx. 989 in the preceding year, and over Rx. 1,600 in earlier years.

JOINT STOCK COMPANIES.

JOINT STOCK COMPANIES.

During the year 1897–98, in all provinces of India, the number of new joint stock companies registered was 179, with a nominal capital of Rx. 3,081,200 and a paid-up capital of Rx. 356,900; while 203 companies, with a paid-up capital of Rx. 886,000, ceased to work. The number of new companies registered in the previous year was 388. At the end of the year there were in operation 1,572 companies, with a nominal capital of Rx. 50,139,600 and a paid-up capital of Rx. 33,123,300. The companies work chiefly in the provinces of Bengal and Bombay; more than 84 per cent. of all the paid-up capital pertains to those two provinces; in Madras the paid-up capital was Rx. 2,439,000, and in the North-Western Provinces it was Rx. 1,277,700; in no other province did the aggregate paid-up capital of registered companies reach Rx. 600,000. The Bombay companies are, taking the figures as they stand, much the richest, the average of paid-up capital for the 349 companies in that presidency being Rx. 39,600; while for the 666 companies of Bengal it is Rx. 21,200, for the 307 of Madras Rx. 7,900, and for the 100 of Mysore Rx. 3,600. The low average in Bengal is due to the recent large development of "provident" companies, with practically no paid-up capital at all. The distribution of paid-up capital among registered companies for different classes of industry was somewhat as follows:—

	Rx. of Paid-up Capital.		Rx. of Paid-up Capital.
Banking and insurance -	4,410,000	Brewery companies - -	170,000
Trading and shipping - -	5,207,000	Mills and presses - -	16,280,000
Mining and quarrying -	1,978,000	Tea and planting - -	3,346,000

The companies with the largest aggregate subscribed capital, Rx. 16,280,000, were for weaving and spinning, or for pressing cotton, jute, wool, and silk; and nearly two-thirds of the capital of such undertakings belonged to the Bombay presidency. The capital invested in mills of these kinds increased nearly 9½ per cent. during the year; while the capital invested in tea-planting decreased. In the 14 years 1884-98 the number of joint stock companies at work has risen from 694 to 1,572; the paid-up capital has risen from 20¾ to 33⅕ millions.

Bengal.

In Bengal 49 new companies were registered during the year, with a nominal capital of Rx. 462,000; while 144 companies, with a nominal capital of Rx. 1,127,000, were wound up during the year. Of the 52 Native provident companies limited by guarantee but possessing no capital, which were working at the end of 1896–97, 13 have been wound up.

Bombay.

In Bombay 83 new companies were registered, including 54 provident societies, chiefly in Gujarat. Twelve companies went into liquidation. At the end of the year 435 joint stock companies were in existence, with a paid-up capital of Rx. 13,824,000; 221 companies, with a paid-up capital of Rx. 10,512,000, were working cotton mills and presses.

Madras.

In Madras 73 new companies were registered, including two companies without capital. Of the 71 other companies, 49 were mutual loan associations, and 17 were trading companies. The nominal capital was Rx. 1,249,000; the paid-up capital Rx. 271,000. The number of companies on the register at the end of the year was 319, with a paid-up capital of Rx. 2,439,000.

PATENTS AND DESIGNS.

PATENTS.

The total number of applications filed in 1897 for the registration of inventions under the Patents' Law was 451, as compared with 460 in the preceding year. Of these, 19 were refused or abandoned, and 83 were undecided at the end of the year. Of the applications, 94, as compared with 107 in the year 1896, were referred for the opinion of experts. The number of specifications filed during the year was 392, or eighty more than in the preceding year. The number of exclusive privileges kept alive by payment of the prescribed fees was 251, as compared with 236 in the previous year. There were 19 applications for the registration of designs, of which five were rejected. The number of applications for patents made by natives of India fell from 49 in 1896 to 43 in 1897. Many of the other applications were due to the desire of European and American inventors to acquire Indian protection for their inventions. The fee receipts of the Indian Patent Office during the year were, after refunds, Rx. 3,100, against Rx. 2,760 in the previous year.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

V.

FINANCE.

FINANCE.

[*The denomination* Rx. *means tens of rupees.*]

Gross Revenue and Expenditure.

THE gross revenue and expenditure of British India in 1897–98 may be thus compared with the figures for 1896–97 :—

	1896–97.	1897–98.	Increase.
	Rx.	Rx.	Rx.
Revenue - - - - - -	94,129,741	96,442,004	2,312,263
Expenditure - - - - -	95,834,763	101,801,215	5,966,452
Deficit - -	1,705,022	5,359,211	Result worse by - Rx. 3,654,189

In the gross revenue are included very large receipts, amounting altogether to about one-third of the whole, which (being derived from the working of the railways and canals, the operations of the Postal and Telegraph Departments, the interest received on loans to municipalities, landholders, &c., and on the investments of the Currency Department, the contributions by officers towards their pensions, the sale of stores, and the receipts of the various administrative departments,) are rather of the nature of a set-off against the corresponding charges than revenue proper; and, on the other hand, there are included in the expenditure, first, the refunds and drawbacks, assignments and compensations, which are a direct set-off against the revenue; secondly, the charge which is incurred for the production of opium, and which is subject to variations caused by the state of the season and of trade; thirdly, the charge for the establishment and maintenance of public works, which necessarily increases as more works are brought into operation. The financial position of the Government can, therefore, be much better appreciated by looking at the net income and expenditure, a statement of which is annually laid before Parliament.* The following is the comparison of the net revenue, *i.e.*, of the gross revenue after the deduction of the refunds and drawbacks, &c., and of the opium charges, with the net expenditure, *i.e.*, the expenditure after the deduction of the various departmental receipts :—

NET REVENUE.

Net Revenue.

	1896–97.		1897–98.		Increase or *Decrease* (—).	
Land Revenue, &c. :	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - - -	22,814,685		24,548,274		1,733,589	
Forests - - - - - -	1,727,763		1,735,027		7,264	
Tributes from Native States - -	863,733		844,174		*— 19,559*	
		25,406,181		27,127,475		1,721,294
Opium : Net Receipts - - - -	—	3,915,624	—	2,783,645	—	*—1,131,979*
Taxation :						
Salt - - - - - - -	8,035,543		8,209,238		173,695	
Stamps - - - - -	4,721,089		4,783,877		62,788	
Excise - - - - - -	5,536,601		5,414,084		*—122,517*	
Provincial Rates - - - -	3,527,252		3,717,560		190,308	
Customs - - - - -	4,356,384		4,536,533		180,149	
Assessed Taxes - - - -	1,860,348		1,881,233		20,885	
Registration - - - - -	457,075		485,419		28,344	
		28,494,292		29,027,944		533,652
Miscellaneous Receipts :						
Mint - - - - - - -	94,812		93,498		*— 1,314*	
Exchange on Remittance Transactions.	144,233		43,970		*—100,263*	
Miscellaneous - - - -	233,143		238,777		5,634	
		472,188		376,245		*— 95,943*
TOTAL NET REVENUE - -	—	58,288,285	—	59,315,309	—	1,027,024

* *See* Parliamentary Paper 80 of 1899.

NET EXPENDITURE.

	1896-97.		1897-98.		Increase or *Decrease* (—).	
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Debt Services:						
Interest on Public Debt (other than that charged to Railways and Irrigation) and other Obligations.	—	2,371,398	—	2,600,019	—	228,621
Military Services:						
Army	23,302,008		26,114,910		2,812,902	
Buildings and Roads: Military	1,095,738		1,115,824		20,086	
Special Defence Works	94,610		23,708		*—70,902*	
		24,492,356		27,254,442		2,762,086
Collection of Revenue	—	6,533,380	—	6,601,604	—	68,224
Commercial Services:						
Post Office	*—80,363*		*—149,689*		*—69,326*	
Telegraph	*—124,765*		*—257,836*		*—133,071*	
Railways	2,659,981		1,432,616		*—1,227,365*	
Irrigation	100,370		*—425,779*		*—526,149*	
		2,555,223		599,312		*—1,955,911*
Civil Services:						
Civil Departments	13,766,628		14,016,036		249,408	
Miscellaneous Civil Charges	5,167,511		5,058,579		*—108,932*	
Famine Relief and Insurance	2,126,355		5,363,125		3,236,770	
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	12,750		3,792		*—8,958*	
Buildings and Roads: Civil	3,991,343		3,635,289		*—356,054*	
Provincial and Local Surpluses or Deficits.	*—1,023,637*		*—457,678*		565,959	
		24,040,950		27,619,143		3,578,193
TOTAL NET EXPENDITURE	—	59,993,307	—	64,674,520	—	4,681,213

Result of the Year.

Thus, there was an increase of the net revenue by Rx. 1,027,024, and of the net expenditure by Rx. 4,681,213, making the position worse by Rx. 3,654,189, and producing a deficit of Rx. 5,359,211 in 1897-98, as compared with one of Rx. 1,705,022 in 1896-97. This is the result of an increase of the net revenue in India by Rx. 1,072,444, and of the net expenditure in India by Rx. 5,400,511, and in England by 535,872*l.*, while in exchange there was an improvement of Rx. 1,209,750, the gold value of the rupee having risen from an average of 14·451*d.* in 1896–97 to 15·354*d.* in 1897–98.

Alterations in Net Revenue and Expenditure.

The improvement of Rx. 1,027,024 in the net revenue is due especially to the recovery of the Land Revenue, which in the North-West Provinces was better than in 1896–97 by Rx. 625,024, in Madras by Rx. 293,558, in Bombay by Rx. 281,253, in Burma by Rx. 251,048, in the Punjab by Rx. 179,860, and in Bengal by Rx. 102,198,—making, with a small addition of Rx. 648 elsewhere, a total enhancement of Rx. 1,733,589. From each of the various heads of taxation there was a moderate increase, with the exception of Excise, the total being larger by Rx. 533,652. The net receipts from Opium were, however, reduced by no less than Rx. 1,131,979, caused mainly by the fall in

the average price paid for a chest at the auction sales in Calcutta from Rs. 1,244 in 1896–97 to Rs. 1,023 in 1897–98; the amount received in March 1898, Rs. 948, was the lowest on record at that time, but in the next three months yet smaller prices were obtained; on the Bombay side there was a diminution in the number of the chests paying duty from 21,751 to 17,432, and the rate, which had been lowered on the 23rd of July 1896 from Rs. 650 to Rs. 600, was further reduced on the 27th of October 1897 to Rs. 500. The gain by exchange on remittance transactions was smaller than in 1896–97 by Rx. 100,263; and in other respects the net revenue was diminished by Rx. 7,975.

For the large increase of Rx. 4,681,213 in the net expenditure, Famine and War were mainly responsible. The expenditure on Famine relief rose from Rx. 2,079,525 in 1896–97 to Rx. 5,325,608 in 1897–98, the increase being Rx. 1,042,523 in the Central Provinces, Rx. 849,026 in Madras, Rx. 642,356 in Bengal, Rx. 619,329 in Bombay, Rx. 77,365 in the North-West Provinces, and Rx. 15,484 elsewhere; after allowing for a slight reduction of Rx. 9,313 in the outlay on Protective Irrigation Works, the net increase under Famine relief and Insurance is Rx. 3,236,770. The Military operations on the North-West Frontier cost in 1897–98 Rx. 3,813,633; but, as is not unusual at such a time, owing to difficulties of classification, the ordinary net Army charges in India were reduced by Rx. 658,382; those in England were larger by Rx. 39,368, while the exchange thereon was less by Rx. 381,717; and hence there was a net increase of Rx. 2,812,902 in the Army expenditure. In the Military and Special Defence Works there was a reduction of Rx. 50,816; so that the net increase under Military Services was Rx. 2,762,086. On the other hand, the Commercial Services showed an improvement of Rx. 1,955,911, of which Rx. 1,227,365 occurred under Railways, owing to the net receipts being more by Rx. 581,417, and the charges less by Rx. 645,948, chiefly through the higher rate of exchange; Irrigation was better by Rx. 526,149, the year 1897–98 being the first in which a surplus was shown as the result of such operations, after defraying all capital charges on minor works; and Post Office and Telegraphs also gave profits better by Rx. 69,326 and Rx. 133,071 respectively.

In the Debt Services there was an increase of Rx. 228,621, caused chiefly by the absence of such premiums as were obtained in 1896–97 on the issue of loans. The charges for the Collection of the Revenue were enhanced by Rx. 68,224, mainly in Madras, Burma, and the Central Provinces. In the Civil Departments the increase amounted to Rx. 249,408, which may be attributed to the plague, the augmentation of the net medical charges having been Rx. 282,227. In Civil works there was a reduction of Rx. 356,054, and under other heads of Rx. 117,890; but the portion of the expenditure defrayed from the Provincial balances was less by Rx. 565,959.

In the tables in the Appendix, the net revenue and expenditure in India of the several Provinces under the chief heads are shown for the years 1896–97 and 1897–98, to which is added a table of the net payments in England, with the loss by exchange thereon, the figures in all the tables combined resulting in the totals of net revenue and expenditure given above. The revenue and expenditure of Berar, which form no part of the general finances of the Government of India, are not given in this chapter, but are referred to under Hyderabad, in the chapter on Native States. The surplus revenues of the various Provinces, as shown in the Summary on page xl of the Appendix, were applied to meet the general charges in India and in England in approximately the following proportions:—In 1896–97: Bengal 38⅓, Bombay 15, Madras 14, North-West Provinces 13⅓, the Punjab 11, Burma 5⅔, Central Provinces 1⅓, and Assam 1⅓. In 1897–98: Bengal 36¼, North-West Provinces 16⅓, Madras 14⅓, the Punjab 14⅓, Bombay 12½, Burma 8, and Assam 1¼, while in the Central Provinces there was a deficiency amounting to 3 per cent.

Capital Outlay on Public Works.

Capital Outlay on Public Works.

The total capital outlay on railways and irrigation works, the expenditure in England being converted into Indian currency at the average rate obtained for the Secretary of State's bills during the year, was as follows :—

	1896-97.	1897-98.	Increase.	Decrease.
Amount supplied by borrowing or from the Cash Balances, without being charged against the Revenue of the Year:	Rx.	Rx.	Rx.	Rx.
State Railways	4,243,974	3,632,005†	–	611,969
Irrigation Works	740,448	692,431	–	48,017
	4,984,422	4,324,436	–	659,986
Amount met by Debentures issued by the East Indian Railway Company	1,435,702	980,684	–	455,018
Amount defrayed from Revenue:				
Provincial Railways	12,750	3,792	–	14,389
Surveys of Railways charged to revenue in previous years	293	–		
Protective Railways	–	–		
Protective Irrigation Works	46,830	37,517		
Other Irrigation Works*	8,540	12,715		
Total Direct Outlay by the State	6,488,537	5,359,144	–	1,129,393
In addition to this, the outlay by companies guaranteed or subsidised by the Government was	3,674,211	4,736,162	1,061,951	–
So that the Total Outlay was	10,162,748	10,095,306	–	67,442

* Excluding capital outlay on the minor works, against which interest is not charged in the Accounts.
† Besides Rx. 4,105 for the construction of the jetty and shed at Chittagong.

Debt.

Debt.

The following table shows the alteration in the amount of the debt that took place in 1897-98 :—

	Amount of Debt on 31 March 1897.	Amount of Debt on 31 March 1898.	Increase.	Decrease.
In India Rx.	109,115,053	111,695,634	2,580,581	—
In England (permanent) £.	113,883,233	117,274,680	3,391,447	—
„ (temporary) £.	1,000,000	6,000,000	5,000,000	—

In 1897-98 a loan was raised in India for the prosecution of railways, at 3½ per cent., to the amount of Rx. 3,000,000, at an average price of Rs. 98,,5,,3 per cent., and debt was discharged to the extent of Rx. 419,419. In England, India 2½ per Cent. Stock to the amount of 3,500,000*l.* was issued, at an average price of 96*l.* 15*s.* 11*d.* per cent.; 105,751*l.* India 3½ per Cent. Stock was cancelled by means of the Sinking Funds, and 2,802*l.* of the outstanding India 4 per cent. Stock was repaid. The temporary debt was increased by 5,000,000*l.*, India (sterling) bills for 6,000,000*l.* having been issued at average rates varying from 2*l.* 4*s.* 5*d.* to 2*l.* 15*s.* 2*d.* per cent. per annum, while 1,000,000*l.* of such bills was repaid.

FINANCE.

Savings Banks and other Obligations.

SAVINGS BANKS AND OTHER OBLIGATIONS.

The following table shows the amount received and paid on account of savings banks, loans to municipalities, and other obligations in India :—

	1896-97.	1897-98.
	Rx.	Rx.
Savings Banks, &c. (net deposits *or withdrawals*)	*—288,382*	*— 324,948*
Loans to Port Trusts, Municipalities, Native States, &c. by the Imperial Government (net receipts *or disbursements*)	34,930	44,963
Loans by the Provincial Governments (*net disbursements*)	*—829,486*	*— 553,549*
Other Obligations (net receipts *or disbursements*)	*—413,561*	155,397
TOTAL	*—1,496,499*	*— 678,137*

Cash Balances.

CASH BALANCES.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :—

	On 1st April			Increase or Decrease.	
	1896.	1897.	1898.	In 1896-97.	In 1897-98.
In India - Rx.	16,500,510	13,873,752	15,982,443	*—2,626,758*	2,108,691
In England - £.	3,393,798	2,832,354	2,534,244	*—561,444*	*—298,110*

Coinage and Paper Currency.

COINAGE AND PAPER CURRENCY.

The value of the coinage at the Mints in India was :—

	1896-97.	1897-98.
	Rx.	Rx.
Silver	573,353	985,691
Copper	176,901	186,638
TOTAL	750,254	1,172,329

Of the silver coinage in 1897-98, Rx. 486,472 was on account of the Native States of Bhopal, Kashmir, and Bikanir. The remainder was limited to half-rupees, quarter-rupees, and eighth-rupees. There were also coined at Bombay, from silver tendered by Exchange Banks, 21,286,427 British dollars, of the value of Rx. 4,830,083, of which 21,157,568 dollars were issued to the Banks, and exported to Singapore, Penang, and Hong Kong.

The receipts and expenditure of the Indian Mints were as follows :—

	1896-97.	1897-98.
	Rx.	Rx.
Receipts	156,635	182,055
Expenditure	61,823	88,557
Net Receipts	94,812	93,498

On the 31st of March 1898 the amount of notes in circulation was Rx. 24,764,049, being more by Rx. 1,010,742 than on the corresponding date in 1897. The reserve was, in gold Rx. 255,420, in silver coin Rx. 14,508,634, and in Government securities, Rx. 9,999,995. FINANCE.

OPIUM.

OPIUM.

General.

The opium revenue is raised partly by a monopoly of opium in Bengal and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the North-West Provinces and Oudh; and the area on which cultivation is permissible is calculated each year with a view of obtaining a fixed amount of opium. A few thousand acres of opium are grown in the Punjab for local consumption. The cultivator of opium in the monopoly districts receives advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is dispatched to the Government factories at Patna and Ghazipur to be prepared for the China market. The price for some years had been Rs. 5 per seer (two lbs.); and was raised to Rs. 6 per seer, with effect from the spring of 1895. The chests of manufactured opium are sold by auction at monthly sales which take place in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. During the year 1897–98 the number of chests sold was 39,000, as in 1896–97. During 1898–99 it has been notified that 3,400 chests are to be sold monthly. The opium reserve, which recently, through a succession of bad seasons, was entirely depleted, is being gradually restored. The surplus amounted on the 1st January 1899 to 6,830 chests, and there is expected to be a reserve of 10,105 chests at the beginning of the year 1900. A small quantity of opium is used by the Indian Excise Departments. In 1861 the average price of opium sold by auction for the China market was as high as Rx. 185 per chest of 140 lbs. weight, but since that year it has fallen; in February 1895 the price rose to Rx. 154, the highest average at any monthly sale for the previous 23 years; it fell to Rx. 92 in May 1898. In the year 1897–98 the average price per chest was Rx. 102, and in 1898–99 it was Rx. 105; it had been Rx. 124 in 1896–97 and Rx. 139 in 1895–96.

Opium is grown in the Native States of Rajputana and Central India. Some of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty, which had been Rx. 60 per chest for several years until December 1894, when it was raised to Rx. 65. The duty was again reduced to Rx. 60 in July 1896, and to Rx. 50 in October 1897.

The yield of the opium revenue during recent years has been:—

	1889–90.	1892–93.	1896–97.	1897–98.
Opium Receipts[a]:	Rx.	Rx.	Rx.	Rx.
Auction sales of monopoly opium - -	6,477,079	6,096,227	4,850,352	3,991,045
Duty on Bombay or Malwa opium - -	1,890,854	1,675,653	1,338,282	970,638
Cost of opium issued to the Excise and other Departments.	215,123	221,300	220,601	218,089
Total - - -	8,583,056	7,993,180	6,409,238	5,179,772
Opium expenditure, chiefly in Bengal - -	1,605,107	1,602,496	2,486,692	2,389,117
Net Opium Revenue - - -	6,977,949	6,390,684	3,922,546	2,790,655

[a] These receipts are outside the provincial opium duties of Rx. 978,000, shown in the Excise section of this Statement.

OPIUM.

The number of chests of Bengal opium sold in each of the years 1889–91 was 57,000, but it had fallen to 37,695 chests in the year 1895–96, and was 39,000 in the years 1896–97 and 1897–98. The number of chests of Bombay opium exported to China was 31,233 in the year 1893–94, 21,693 in the year 1895–96, 22,289 in the year 1896–97, and 16,676 in the year 1897–98.

The decrease in the net opium revenue for 1897–98 was due partly to the heavy fall in prices at the Calcutta sales, and partly to the reduction in the pass duty on the exports of Bombay (or Malwa) opium. The net opium revenue during the past 27 years has been as follows :—

Net Opium Revenue in	Rx.	Net Opium Revenue in	Rx.
1872–73	6,870,423	1894–95	5,707,652
1878–79	7,700,671	1895–96	5,054,981
1880–81	8,451,276	1896–97	3,922,546
1888–89	5,964,404	1897–98	2,790,655
1893–94	4,750,964		

Bengal.

The area actually cultivated with the poppy in the Ganges Valley has fluctuated much, thus :—

Area of Bengal Opium Cultivation in Acres.

1886	594,921	1897	561,975
1894	458,181	1898	539,885
1896	519,640		

The rise in recent years, as compared with 1894, was partly due to the increase of 20 per cent. in the price paid by Government to the cultivators for their raw opium. The fall in the last year, as compared with 1897, occurred in the Benares agency, and was due to the high prices of grain, which rendered cultivators unwilling to grow opium, as well as to other causes. The total of land engaged for opium cultivation in the Behar agency increased slightly, and in consequence of favourable weather in the early part of the season there were comparatively few failures. During February and March, however, conditions were less favourable, and the crop was much below expectation, especially in the Behar agency. The opium harvest has for eight successive seasons been much below the average of former years; the yield was very poor in 1894, was a little better in 1895, and somewhat larger again, though still much below the old average in the three last years. The average yield of opium was $13\frac{3}{4}$ lbs. per acre, as compared with $13\frac{1}{4}$ lbs. per acre in 1897, and with a normal outturn of 18 lbs. per acre in a year of good harvest.

The number of prosecutions for breaches of the Opium Laws was 1,722 as compared with 1,469 in the preceding year; in these cases 1,272 persons were convicted, and 305 were acquitted, as compared with 1,208 and 246 respectively in the previous year.

SALT.

SALT.

General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from $\frac{1}{3}$th of a rupee (in Burma) to $3\frac{1}{4}$ rupees (in Bengal) per maund of $82\frac{2}{7}$ lbs.; during the year 1895–96 the rate was $2\frac{1}{2}$ rupees over the whole of India, except Burma, where it was one rupee per maund. The Indian sources of salt supply are

the coast, where salt is manufactured for the consumption of all southern and western India and part of Burma and Central India; the salt lakes and pits of Rajputana, which supply the North-Western Provinces, Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. The regions supplied from each source contract or extend, according to varying circumstances of the season, or of markets, or of means of carriage; for instance, when an unusually wet season prevented salt production by solar evaporation at the Sambhur Lake in Rajputana, special supplies from the Bombay coast factories were carried inland, and partly made up for the deficiency; when a railway was opened to the Punjab mines, salt made its way thence further south and east. SALT.

The SALT REVENUES and CHARGES in the Year 1897–98 were as follows :—

PROVINCE.	Price of Government Salt, and Excise on Salt made Locally.	Duty on Salt Imported from England.	Duty on Salt Imported from other Sources.	Miscellaneous.	TOTAL.	Charges.	Net Salt Revenue.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Northern India - -	1,932,092	—	—	15,718	1,947,810	103,948	1,843,862
Burma - - - -	24,234	119,694	12,816	—	156,744	642	156,102
Bengal - - -	4,631	1,479,445	967,613	11,626	2,463,315	16,475	2,446,840
Madras - - -	1,718,310	481	472	7,698	1,726,961	180,779	1,546,182
Bombay - - -	2,214,849	928	1,442	82,176	2,299,395	171,903	2,127,492
TOTAL, 1897–98 -	5,894,116	1,600,548	982,343	117,218	8,594,225	473,747	8,120,478
1896–97 -	5,692,657	1,463,062	1,145,324	120,662	8,421,705	523,352	7,898,353

The charges above shown do not include a sum of about Rx. 300,000 paid under treaties to Native Chiefs who have assigned the management of their salt sources to the British Government. The net revenue increased by Rx. 222,000, which is about half the amount of the fall caused in 1896–97 by famine stringency. The rate of salt consumption per head of the population differs widely in the several provinces. In ordinary years it is over 17 lbs. per head in Burma, where the rate of salt duty is one rupee a maund; it is 18 lbs. a head over a great part of Madras, where the duty is 2½ rupees per maund; it is about 10¼ lbs. per head in Bengal, where the duty is 2½ rupees per maund; and it is about 8 lbs. a head in the North-West Provinces and Oudh, where the duty is also 2½ rupees per maund. The small difference, about 15 per cent., due to longer distance from salt sources, in the retail prices of salt between northern and southern India, does not explain the great differences in the rate of consumption per head.

During the last eleven years the total salt consumption of India has been as follows :—

In the Year	Total Actual Consumption of Duty-paid Salt in India, inclusive of Burma.
1885–86 - - - - - - - -	32,289,000 maunds, each maund being equal to 82⅔ lbs. avoirdupois.
1886–87 - - - - - - - -	34,330,000 ,,
1888–89 (The rate of duty was raised in January 1888 from 2 Rs. to 2½ Rs. per maund).	31,474,000 ,,
1890–91 - - - - - - - -	33,722,000 ,,
1892–93 - - - - - - - -	35,451,000 ,,
1893–94 - - - - - - - -	34,029,000 ,,
1894–95 - - - - - - - -	34,555,000 ,,
1895–96 - - - - - - - -	35,090,000 ,,
1896–97 - - - - - - - -	34,639,000 ,,
1897–98 - - - - - - - -	35,123,000 ,,

SALT.

These figures are not absolutely accurate, because the amount of local salt consumed in Burma is not precisely known, but in the foregoing figures it is estimated at 600,000 maunds in 1897-98 and 1896-97, at 500,000 maunds for the year 1895-96, at 400,000 maunds in the years 1889-95, and at 560,000 maunds in earlier years.

Northern India.

The Northern India Salt Department controls the salt sources of the Punjab and of Rajputana, whence are supplied the wants of the Punjab, Oudh, the North-Western Provinces, the northern districts of the Central Provinces, and the greater part of the Rajputana and Central India States. The sales of duty-paid and free salt at the northern salt sources amounted in 1897-98 to 7,765,000 maunds, or nearly the same as the sales of the previous year. Compared with the preceding year sales of salt increased at the Sambhur Lake and at the Punjab salt mines. The season was again very unfavourable for the manufacture of salt at the Sambhur Lake or at other salt sources of Rajputana. The price of salt ex-duty at the Sambhur Lake, which is the largest source of supply, was 4 annas per maund as in the preceding year. Of the total duty-paid salt consumed, the Sambhur Salt Lake supplied 4,098,000 maunds, the Mayo and other mines in the Punjab supplied 2,158,000 maunds, and the remainder came from minor salt sources. The issues of salt from the Kohat mines fell 35 per cent. as compared with the sales of the previous year. The enhancement of salt duty at the Kohat mines, from half a rupee to two rupees per local maund of 102 lbs., took effect in July 1896, and in view of this, and of the disorganisation of trade by the frontier war, it is considered that the figures of this year are satisfactory. At the end of the year under report, the Indus Preventive Line was abolished. The gross receipts on account of salt revenue increased from Rx. 1,876,000 in the year 1896-97 to Rx. 1,958,000 in 1897-98; the charges came to $5\frac{1}{2}$ per cent. on the receipts as compared with $6\frac{1}{2}$ in the previous year. The average wholesale price of duty-paid salt, at the chief marts of the provinces supplied from the northern salt sources, ranged during the year: in the Punjab, from $2\frac{15}{16}$ rupees a maund at Rawulpindi to $3\frac{1}{3}$ rupees at Amritsar; in the North-West Provinces, from $3\frac{1}{8}$ rupees at Agra to $3\frac{5}{8}$ at Fyzabad; in the Central Provinces, from $3\frac{11}{16}$ in Nimar to 4 rupees at Jubbulpore and Nagpore. The price of imported salt in the adjoining province of Behar ranged from $3\frac{9}{16}$ rupees at Patna to $3\frac{3}{4}$ rupees at Muzafferpur and Chupra. Prices were about the same as in 1896-97.

The number of persons prosecuted for breach of the salt law fell from 542 to 500; of this latter number seven persons were acquitted and 486 were convicted, of whom 290 were imprisoned in default of payment of fine. The number of serious cases of salt smuggling were very few; 1,024 persons who were arrested for very petty cases of salt smuggling were released by the departmental officers without being sent for trial.

Bengal.

The chief administrative changes in Bengal under consideration or effected during the year were the formation of a preventive staff to suppress illicit manufacture of salt in the coast districts, the revision of the salt law in Bengal and its extension to Orissa, and the re-transfer of the salt administration of Orissa from Madras to Bengal.

The total quantity of salt paying duty in Bengal during the year was 10,336,000 maunds, or slightly less than in the previous year. The quantity consumed in Bengal, after deducting net exports by land, was 9,706,000 maunds against 9,695,000 in 1896-97. The amount of salt imported and manufactured during the year was 12,222,000 maunds, of which there came from—

	Maunds.
The United Kingdom	7,115,000
Germany	973,000
Bombay	557,000
Madras	87,000
Red Sea and Persian Gulf Ports	2,333,000
Aden	1,128,000
Madagascar	29,000

There were very considerable increases under all heads, the total being 48·6 per cent. above that of 1896–97. The imports from the United Kingdom increased by 2,633,000 maunds. The stocks in hand at the end of the year were 3,446,000 maunds, as compared with 1,475,000 at the beginning of the previous year, the increase being due to the great advance in salt importations from Europe, which lowered the price of salt, and kept a large quantity of Aden and Red Sea salt off the market. In view of accumulated stocks it was intended to close the Orissa factories for the year; but the famine rendered it necessary to open them as a relief measure, and the amount manufactured was only about 17 per cent. less than last year. The gross salt revenue was Rx. 2,465,000, or a small fraction below the receipts of the preceding year, against an expenditure of Rx. 36,000. In Orissa the consumption of locally-manufactured salt fell from 46,000 to 17,000 maunds; but the sales of Ganjam salt increased, owing largely to the increased facilities given by the East Coast Railway and the total consumption of Orissa was 2·75 per cent. larger than in the previous year, though still below that of the year 1893–94. The average price of salt, including duty, at the nine chief marts of Bengal decreased by 1 anna 1 pie per maund, or 1·75 per cent., as compared with the previous year. The decrease was mainly due to a fall in the price of Liverpool salt, which ranged during the year from 98 rupees to 63 rupees per 100 maunds, as compared with a range of 124 to 72 rupees during the previous year. The average consumption of salt in Bengal was about $10\frac{1}{4}$ lbs. or about the same as in the previous year. Salt.

The number of cases in which contraband salt was confiscated was 1,051, as compared with 1,097 in the previous year. There were in all 904 prosecutions for salt offences; and 30 persons out of a total of 1,017 accused people were acquitted. In the previous year there were 905 prosecutions.

It was explained in a previous number of this Statement* that in Madras, where salt is made on the coast by solar evaporation, a limited number of Government salt factories had been re-opened in order to remedy the evils of high prices and small stocks, which had resulted from the handing over of the manufacture of salt to capitalists under an excise system. The intention was to create as soon as possible a reserve of Government salt, but not to disturb the market by selling Government stocks unless the supply should run short or prices be forced up at any salt mart; the Government reserve stocks were eventually to be somewhat more than one-third of a year's consumption. The stocks have, as a matter of fact, accumulated to the extent of about two years' requirements, and much waste has resulted; and in view of this, it has now been decided that the requirements for a reserve at each factory shall be considered, and amounts settled, any excess above which shall be sold at a fixed price. Madras.

During the year 1897–98 there were 59 factories at work, or seven less than in the previous year; of these 18 were Government, and 41 private, establishments. The average price of bonded salt throughout the presidency, which had been $6\frac{1}{12}$ annas per maund under the excise system in 1887–88, was nearly $3\frac{1}{2}$ annas per maund in 1897–98, or slightly dearer than in the previous year. The average retail price of salt in the several districts of the plains ranged during the year from 9·25 seers per rupee in the Nilgiris to 13·02 seers per rupee in Chingleput. The total quantity of salt manufactured during the year was 6,570,000 maunds, besides 1,280,000 maunds of salt imported from Bombay, against 9,488,000 maunds manufactured in the preceding year, and an average of 5,260,000 maunds in the two years 1885–87, when the output of salt was too low. The decrease was due partly to an unfavourable season and partly to the large stocks which had been accumulated, amounting to 14,673,000 maunds, or 25 months' consumption. Owing to the smaller manufacture, and to the destruction of 425,000 maunds of old salt, the stock at the end of 1897–98 fell to 12,484,000, which is equivalent to 21 months' consumption, compared with about eight months' supply at the end of the year 1887–88. The reason for the maintenance of such large stocks is that an unfavourable season may in any year reduce the output of existing factories by 50 per cent.

* *See* the Twenty-fourth Number of this Statement (for 1887–88), p. 76, and the Twenty-fifth Number (for 1888–89), p. 73.

SALT.

The issues of Madras salt for home and inland consumption were 8,379,000 maunds, or more than 4 per cent. above the issues of the preceding year, and the highest on record. The consumption of salt by 34,388,000 of the population of South India, including Mysore, Coorg, and certain Native States, but not including certain districts on the northern coast of Madras, came to 16·46 lbs. per head, as compared with 15½ lbs. per head in 1896–97; the consumption by a population of 18¼ millions in the Tamil districts south of Madras came to 18¼ lbs. per head, as compared with 18 lb. in the previous year.

The gross revenue from Madras salt was Rx. 1,727,000, as compared with Rx. 1,,682,000 in the preceding year, and was about equal to the average of the last 10 years.

During the year 1897–98 there were 128 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured was 43,300 tons, or 1,200 tons more than in the previous year. The cost of the yards to the treasury was more than covered by the reduced price (6⅔ to 10 annas per maund) realised for salt; and in order to encourage the industry, special privileges have been granted in the case of the yards on the East Coast. Most of the salt fish is consumed within the presidency, the net exports being returned at 4,400 tons, valued at $1\frac{7}{12}$ annas (about 1½ pence) per pound.

Prosecutions under the salt laws, though more than 12 per cent. fewer than in the previous year, were still numerous in comparison with other provinces; 9,449 persons were charged with salt offences, of whom 2,081 were released by departmental officers with a warning, and 7,211 were sent for trial. Of the persons tried during the year by magistrates, more than 99 per cent. were convicted. The average fine imposed on offenders against the salt laws was a little under 2 rupees per head.

Bombay.

On the Bombay coast salt is made partly by boiling and partly by solar evaporation, at 449 factories, or 11 more than in the year 1896–97. The amount of salt manufactured was 10,337,000 maunds, or 384,000 maunds more than in 1896–97; the stocks at the beginning of the year were unusually large, and the quantity of salt written off as wastage was slightly larger than in the previous year. The total removals of salt for consumption came to 9,093,000 maunds, or 325,000 more than in 1896–97. The amount of Baragra salt issued to the Central Provinces and North-West Provinces shows a recovery; but traders in Oudh and other parts of Northern and Central India are beginning again to draw their supply of salt from the Sambhar Lake, which used to supply them before its failure in 1893. The export of sea salt to the Madras Presidency, including Malabar, shows a total increase of 52,000 maunds, though British Malabar alone took 280,000 maunds less than last year. The total imports of salt, chiefly from Goa, were 9 per cent. larger than in 1896–97. The amount of duty-paid salt taken for consumption in Bombay districts was 3,366,000 maunds, or 11½ lbs. per head of the population, as compared with 11 lbs. in the previous year. In Guzerat, the richest part of the presidency, the rate was 7·8 lbs. per head, and in the rest of the presidency it was 13·68 lbs. The gross salt revenue receipts were Rx. 2,228,000, or Rx. 60,000 above the total of the previous year, and Rx. 188,000 below the receipts of 1894–95. During the year the average price of salt, exclusive of duty, ranged from 1⅓ annas per maund at the Baragra works to 4¼ annas per maund at the dearest of the sea-salt works, near Bombay; the wholesale price of duty-paid salt ranged from Rs. $2\frac{15}{16}$ per maund in the cheapest district, Ahmedabad, to Rs. 4⅓ per maund at Nasik, the dearest market. Seventeen fish-curing yards were at work, being two more than in 1896–97. The quantity of fish brought to be cured in bond was 1,744 tons, which shows a great falling off, due to scarcity of fish, and only 530 tons of cheap salt were issued to fish-curers.

The number of persons tried for offences under the salt laws was 1,198, against 1,072 in the previous year; the number convicted was 1,125, against 1,013.

In Sind the amount of duty-paid salt passed into consumption was 268,000 maunds, or about the same as in the previous year; and the salt revenue was Rx. 74,000, or 2 per cent. below the receipts of 1896-97. The percentage of charges to receipts was 11·72, against 11·98 in 1896-97. The consumption of duty-paid salt came to 7·90 lbs. per head of the population, against 7·98 lbs. in the previous year. The average price of salt rose slightly, and was Rs. 3.8¾ As. per maund. SALT. Sind.

The number of prosecutions for salt offences rose from 122 to 136; and in 95 per cent. of these, convictions were obtained.

The amount of foreign salt which paid duty in Burmese ports during 1897 was 1,196,370 maunds, or 70,173 more than in the previous year. This comes almost entirely from England and Germany, and pays a duty of Rs. 1 per maund. The Excise duty on locally manufactured salt is raised by a fee on vessels used for boiling brine. It amounted to Rx. 21,332 in 1896, and to Rx. 24,677 in 1897. The output of local salt is estimated at 488,636 maunds in 1896, and 620,060 maunds in 1897. This increase has been taken to indicate that the rates of Excise duty give the home product an unfair advantage, and the rates in Lower Burma have therefore been under revision. During the year the retail price of foreign salt at Rangoon, which governs the price throughout Burma, has been $1\frac{13}{16}$ rupee per maund; this is about the same as last year. The price in inland markets varies, but was generally over Rs. 2; the price of local salt varied from $1\frac{1}{8}$ rupee at Meiktila to 5 rupees in Northern Arakan; generally, it may be said to be less than Rs. 2 per maund. The total consumption of the year in Burma is estimated at 1,800,000 maunds. The imports of salt fish and fish-paste from the Malay Peninsula increased from 264,542 to 338,858 maunds. Burma.

EXCISE.

EXCISE.

The excise revenue of India is raised partly from the following sources:— (1) Monopolies for the sale of liquors and intoxicating drugs, over defined areas; (2) Still-head duty on all spirits manufactured at distilleries; (3) Licenses for the working of stills at specified places; (4) Licenses for the sale of various kinds of liquor.*† Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in India, is not subjected to any duty; tea and coffee, which are grown largely for Indian consumption and for exportation, are also free from all duties. Over almost the whole of Bombay and the Punjab, over the populous parts of Madras, the North-Western Provinces, Oudh, and Burma, and over some parts of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength. The still-head duty ranges as high as five rupees per gallon of London proof spirit; if the cost of licenses be added, the total duties are in some places more than seven rupees per gallon of London proof spirit. The system of excise management followed in these tracts is called the central distillery system. Over a large part of Bengal, and over most of the Central Provinces, over the whole of Assam and about half of Berar, and over limited tracts in other provinces, revenue is levied on Indian spirits by leasing the spirit monopoly to the highest bidder, which is called the farming system; or by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have in past years declared their intention to restrict the farming and out-still systems as narrowly as possible. The difficulties are that in sparsely-peopled forest tracts the materials for illicit distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept General.

* A customs duty is also levied on all imported spirits, wines and beer. *The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer.

† The Excise duty on cotton yarns on counts above 20s. is dealt with under the heading of "Customs."

EXCISE.

in such places; and illicit practices prevail, to the consequent demoralisation of the people, if weak liquor cannot be obtained in some lawful way. Licensed out-stills are sometimes the only means of meeting the requirements of such exceptional tracts.

The following table gives the excise revenue of 1897–98 for each province under the different heads, as shown in the Finance and Revenue Accounts:—

	India, General.	Bengal.	North-West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Spirits, Fermented Liquors and Drugs, viz.:—	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Foreign Liquors, &c.	6,215	107,783	46,425	25,008	97,897	741	2,556	39,962	22,256	348,843
Country Spirits	79,343	558,181	253,445	128,196	75,836	103,949	54,821	615,243	763,761	2,632,775
Toddy	3,474	101,364	9,180	–	39,128	2,123	19	716,053	144,161	1,015,502
License Fees for sale of Opium and its preparations.	2,545	60,683	14,317	37,492	132,999	19,319	31,267	36,525	3,972	339,119
License Fees for sale of other drugs.	2,833	137,775	82,259	24,026	1	7,858	18,158	6,865	45,434	325,209
Duty on Opium consumed in India.	1,438	171,185	45,729	17,127	70,391	30,788	151,899	40,432	106,964	635,953
Acreage on Land cultivated with the Poppy.	–	–	–	2,649				–	–	2,649
Fines, Confiscations, Miscellaneous.	2,808	1,265	141	176	5,327	865	73	6,930	8,292	25,877
Duty on Ganja	–	136,539	–	–	–	8,668	17,998	–	322	163,527
TOTAL Revenue	98,656	1,274,775	451,496	234,674	421,579	174,311	276,791	1,462,010	1,095,162	5,489,452
Charges	2,504	67,399	5,797	5,380	19,230	5,036	471	99,237	35,309	240,371
Net Revenue, 1897–98	96,152	1,207,376	445,699	229,294	402,349	169,275	276,320	1,362,773	1,059,853	5,249,191
Net Revenue, 1896–97	104,328	1,270,289	440,865	213,756	405,859	206,288	277,730	1,418,977	1,063,253	5,401,345

The sum of Rx. 661,312 was yielded by import duties on liquors and spirits imported into India during the year 1897–98, and thus the total drink and drugs revenue of India amounts to about 4¼ annas a head on the whole population of British India. There has been a considerable increase in the excise revenue during the past 30 years; but this increase, though in part due to enhanced consumption of liquors caused by the growth of population and the general increase of earnings, is yet largely, and in some localities mainly, the result of improved excise administration, which has doubled or trebled the rates of taxation, and has, at the same time, restricted the use of illicit intoxicants. The totals of the net excise and customs revenues on liquors and drugs consumed in India during the past 24 years compare thus:—

	Rx.		Rx.
1874–75	2,633,000	1892–93	5,660,000
1880–81	3,515,000	1894–95	5,947,000
1883–84	4,259,000	1895–96	6,176,000
1886–87	4,865,000	1896–97	6,061,000
1889–90	5,294,000	1897–98	5,909,000

For the 232* millions of people who inhabit the several provinces of British India and Berar, the total number of shops licensed for the retail

* This figure is an estimate based on the results of the Census of 1891, which showed a population in British India of 221,172,952.

sale of spirits, fermented liquors, opium and drugs, is as follows, province by province:— Excise.

PROVINCE.	Number of Retail Shops licensed in 1897-98 for the Sale of					Quantity of Opium sold for Local Consumption, so far as known.
	Spirits made in India.	Imported Spirits or Liquors.	Toddy and Rice Beer or other Indian Fermented Drinks.	Opium.	Narcotic or Intoxicating Drugs, other than Opium.	
						Maunds (82 lbs. each.)
Bengal	3,211	513	16,393	1,667	3,090	2,086
North-West Provinces and Oudh.	6,126	260	4,477	1,112	3,587	1,356
Punjab	1,286	483	36	1,522	1,445	1,499
Burma	66	410	1,069	52	None.	752
Central Provinces	5,985	90	654	916	978	462
Assam	217	73	9	758	276	1,332
Madras	10,387	772	17,602	1,067	272	901
Bombay	2,825	256	1,765	1,151	1,198	1,471
Berar	1,141	21	971	461	127	307
TOTAL 1897–98	31,244	2,878	42,976	8,706	10,973	10,166
TOTAL 1896–97	32,016	3,014	42,454	8,837	10,862	10,496

There are thus, 97,179 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of 2,400 of the population. In the United Kingdom in 1897–98, there were 168,534 licenses for the retail sale of beer, wine and spirits, or one shop to 237 of the population. In neither computation are occasional or part-year licenses reckoned; of these latter licenses 36,376 were issued in the United Kingdom during the year, while the temporary or part-year licenses in India are under 2,000 a year.

In Bengal the total excise revenues of 1897–98 and the two previous years were as follows:— Bengal.

Receipts from	1895–96.	1896–97.	1897–98.
	Rx.	Rx.	Rx.
Country spirits	591,184	608,046	558,101
Foreign liquors and rum	75,478	71,320	70,703
Fermented local liquors, toddy and rice-beer	145,933	145,447	138,506
Opium	247,282	232,560	231,860
Ganja, bhang, and their compounds	276,002	281,817	274,295
Miscellaneous	1,901	1,868	1,336
TOTAL EXCISE REVENUE	1,337,780	1,341,058	1,274,801
Add duties on imported liquors	186,668	191,990	184,406
TOTAL REVENUE FROM DRINKS AND DRUGS Rx.	1,524,448	1,533,048	1,459,207

The excise charges were rather less than in 1896–97, and the result is a decrease in net excise revenue of about 6½ lakhs, which was due to the

EXCISE.

famine. During several years the normal annual increase has been about four lakhs.

The policy of substituting the central distillery system for the out-still system of raising revenue from country spirits was not carried further in Bengal during the year. Out-stills had been abolished in 1890 over all districts of the Burdwan, Presidency, Dacca, and Orissa divisions, containing a population of 30 millions. The number of central distilleries was 30, as in the previous year. The number of licensed out-stills in the whole province was 2,018, as compared with 2,097 in the previous year, and 5,250 out-stills in the year 1881–82. The total number of retail licenses for the sale of country spirits, rum and imported liquors, during the past three years, has been :—

	1895–96.	1896–97.	1897–98.
Number of licenses granted for the retail sale of—			
Country spirits from out-stills - - - -	2,091	2,097	2,018
Country spirits from central distilleries - -	1,197	1,191	1,193
Rum, imported wines, spirits and other liquors -	586	484	513
	3,874	3,772	3,724

The revenue derived from country spirit declined by five lakhs, as shown above. Much of the out-still liquor is of very low alcoholic strength. The quantity of spirit issued from the out-stills was reported to be equal to 1,045,000 gallons of London-proof liquor, as compared with 1,390,000 gallons in the previous year. The out-turn from central distilleries in the year was 442,000 gallons London-proof spirit, against 478,000 gallons in the previous year. The still-head duty levied on central distillery liquor ranged from $1\frac{7}{8}$ to 5 rupees per gallon of proof spirit. The incidence of excise revenue per head of population was Rs. $2\frac{1}{2}$, as compared with Rs. $2\frac{11}{16}$ in the preceding year.

The revenue from toddy was Rx. 101,422, as compared with Rx. 101,048 in the previous year; the number of licensed shops for fermented toddy was 13,233, against 13,301 in 1896–97. In 1897–98 as many as 1,568 shops were licensed for the sale of unfermented toddy or palm-tree juice. Attempts have been made to raise *tari* revenue in selected districts by imposing a tree-tax on the Madras system ; in some districts the attempt has been abandoned, as being unsuited to local circumstances; in others the experiment is being continued with some prospect of success. The number of shops licensed to retail pach-wai, or rice-beer, was 1,592. The number of licensed ganja shops was 2,706, as compared with 2,688 in the preceding year, and the amount of licit ganja consumed was 4,651 maunds, against 5,008 in the preceding year; the rate of duty has been twice enhanced during the previous six years, but remained the same through the year 1897–98. Ganja is grown under close supervision in the Rajshahi district, and its cultivation elsewhere, including the Tributary States of Orissa, is forbidden. The number of shops licensed for the retail sale of bhang and charas (other hemp drugs) was 330 and 54, as compared with 322 and 54 in the previous year. The number of shops licensed for the retail sale of opium was 1,667, or 13 less than in the preceding year; the amount of licit opium consumed fell from 2,110 to 2,086 maunds. No shops are licensed for selling opium prepared for smoking after the Chinese fashion, known as *chandu*, or opium prepared for smoking after the Bengali manner, known as *madak*.

The number of arrests for offences against the excise and opium laws fell from 4,148 to 3,634, and convictions were obtained against 3,188, or 88 per

cent., of the accused persons; of these, 210 persons were convicted of the offence of illicit distillation. EXCISE.

The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1897. For the last three years the excise revenues have been :— North-Western Provinces and Oudh.

Receipts from	1894–95.	1895–96.	1896–97.
	Rx.	Rx.	Rx.
Country spirits	359,820	326,381	238,343
Foreign liquors and rum	38,901	42,154	43,426
Opium	76,506	67,822	60,177
Other drugs	79,747	78,729	73,198
Toddy and miscellaneous	8,692	9,216	8,643
TOTAL Rx.	563,666	524,302	423,787

There was a decrease of Rx. 100,500, or 19 per cent., below the revenue of the preceding year, which year had shown a decrease of Rx. 39,000, or 7 per cent.; the fall in revenue was due to the famine, which caused high prices and hard times for the people.

The revenue from country spirits was raised as follows :—

(*a*) Rx. 206,646 under the central distillery system, which extends over 67,000 square miles, inhabited by 37½ millions of people.

(*b*) Rx. 19,143 under the out-still system, which extends over 20,000 square miles, inhabited by 6 millions of people.

(*c*) Rx. 12,554 under the farming system, which extends over 19,500 square miles, inhabited by 3 millions of people.

The rate of still-head duty charged at the distilleries was Rs. 2 per gallon of London proof spirits, and Rs. 1½ per gallon for spirit 25° below proof with intermediate rates in a few districts to meet special difficulties. The total amount of spirit passed out of the central distilleries was 861,000 gallons, against 1,194,000 gallons in the previous year, and against 2,056,000 gallons in the year 1885–86. The total consumption of distillery liquor during the year represented 661,000 gallons of London proof spirit. The number of distilleries was 31, four less than in the previous year. The number of licensed retail shops for country spirits in the two provinces fell from 4,881 to 4,697 in the central distillery tracts; and rose from 1,395 to 1,429 in the tracts where the out-still and farming systems prevailed; the retail licenses for rum and foreign spirits increased from 273 to 300; and the consumption of rum from the Rosa factory fell from 30,741 to 30,519 gallons.

The number of shops licensed for the sale of opium and its compounds was 1,112, as compared with 1,103 in the previous year. No shops were licensed for the sale of chandu and madak, or opium prepared for smoking. The quantity of licit opium passed into consumption was 1,356 maunds, against 1,532 maunds in the previous year. The number of shops licensed for the retail sale of other narcotic drugs was 3,587, as compared with 3,637 in the previous year. A new system of taxing hemp drugs by a quantitative duty in addition to license fees came into force this year. The amount was fixed at Rs. 6 to Rs. 9 per seer for Bengal ganja and Rs. 1¼ for ganja from other places; while the duty on charas is Rs. 2½ to Rs. 2 per seer. These rates are receiving further consideration. The number of licensed toddy shops increased from 4,464 to 4,477. The Madras system of taxing toddy trees was given a further trial in two districts; but it does not work well in a province where the toddy revenue is comparatively small.

Excise. The number of prosecutions under the Excise Act was 686, or 2·4 per cent. more than, and under the Opium Laws 611, or 15·7 per cent. more than, in the previous year; the prosecutions for illicit distillation were 99, against 61 in 1895–96 and 186 and 305 in the two preceding years. The proportion of convictions to prosecutions was rather higher than in the previous year.

Punjab. The excise revenues of the Punjab in the last three years were raised as follows:—

Receipts from	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
Country spirits	117,835	117,277	127,820
Imported liquors and rum	24,543	24,252	25,015
Opium	52,565	55,962	57,270
Other drugs and miscellaneous	18,933	21,766	24,585
TOTAL Rx.	213,876	219,257	234,690

The increase of 7·3 per cent. in the revenue was due partly to the further increase under the two new duties which came into force last year, one on opium imported from the Hill States into the Punjab, and the other on *charas*, a variety of hemp drug, imported into the Punjab from the Upper Himalayas; but it was chiefly caused by a general expansion under liquors.

The central distillery system is in force throughout the whole province, save in small parts of the Gurgaon, Firozpur, and Kangra districts, and there were during the year 17 central distilleries, as compared with 19 in the previous year. The rates of still-head duty were three rupees per gallon of spirit less than 25 degrees below proof, 2½ rupees for spirit from 50 degrees to 25 degrees below proof, and two rupees for spirit more than 50 degrees below proof. Country spirits in the Punjab are distilled from molasses. The total of licit spirits issued for consumption and the number of licensed shops for the past three years are returned thus:—

	1895-96.	1896-97.	1897-98.
Consumption of country spirits computed at London proof, in gallons.	238,794	228,329	235,928
Ditto rum, London proof, in gallons	53,313	44,737	48,080
Ditto other imported spirits, in gallons	79,350	60,189	68,307
Licensed retail shops for country spirits	1,293	1,269	1,286
Licensed retail shops for rum and imported liquors, including hotels, refreshment rooms, and travellers' rest-houses.	473	473	483

It is noted that there is very keen competition at the sales of licenses for retail sale of country spirits, with the result that the revenue from that source is constantly on the increase without a proportionate increase in the number of licenses issued.

The opium revenue comprised Rx. 2,643 from an acreage fee on lands growing the poppy, and Rx. 37,482 from licenses for the vend of opium, besides Rx. 12,215, the duty on imported opium, and Rx. 4,912, the gain on sale of excise opium. The area licensed for poppy cultivation fell from 12,741 acres in 1895–96 to 9,757 in 1896–97; it is stated to be 10,412 acres in 1897–98; the

increase, as compared with the previous year, occurring in Umballa. But on the whole poppy cultivation seems to be declining in this province. The number of shops licensed for retail sale of opium was 1,552, as compared with 1,540 in the previous year; the quantity of licit opium returned as consumed was 1,499 maunds, as compared with 1,471 maunds in 1896–97. No licenses are granted for shops where opium preparations could be consumed on the premises. The number of shops licensed to retail hemp and other drugs was 1,445, as against 1,340 in the previous year. Excise. Punjab.

The number of persons prosecuted under the liquor and drug laws fell from 446 to 376, of whom 207 persons were convicted for serious offences, such as illegally distilling or smuggling liquor, and 53 for petty offences; and the number prosecuted under the opium laws fell from 366 to 269.

In Burma the gross excise revenue during the past three years was raised thus:— Burma.

Receipts from	1895–96.	1896 97.	1897–98.
	Rx.	Rx.	Rx.
Distillery and imported liquors	98,327	98,067	96,491
Out-stills	11,021	12,389	10,935
Toddy	38,882	40,491	38,102
Rice beer	53,613	52,757	60,659
Fines under excise laws	5,165	5,388	5,586
Opium (after deducting prime cost of Government opium).	182,306	217,479	215,862
TOTAL Rx.	389,314	426,571	427,635
Add duty on imported liquors	102,567	107,767	104,519
TOTAL Rx.	491,881	534,338	532,154

The distress which prevailed at the end of 1896–97 had its effect in slightly lowering the figures of 1897–98, as compared with the previous year. The only item which shows an increase of importance is rice beer, a comparatively innocuous beverage. Five central distilleries and one brewery were working during the year in Burma. The receipts from Customs duty on imported spirit fell 3 per cent., as compared with the previous year. In Pegu and Irrawaddy foreign spirits are being replaced to some extent by country liquor. The number of out-stills was 45, as compared with 53 in 1896–97. The central distilleries produced 35,827 gallons of spirits, against 50,719 gallons in the previous year.

The number of retail shops licensed under the excise and opium laws in the two sections of the province during the last two years was:—

	1896–97.	1897–98.
Out-still shops	53	45
Distillery spirit and foreign liquor shops	435	421
Toddy shops	863	817
Rice beer and other fermented liquor shops	239	252
Opium shops	52	52
Licit opium consumed (in maunds)	703	752

* The obligation on toddy palm owners to take out licences for sale of toddy to retail shops was removed during the year.

Excise.

There was a considerable increase in the consumption of opium; but as the prices offered for retail licenses were smaller the total revenue shows a slight falling off. The number of licenses remained the same as in 1896–97.

From the 1st January 1894 opium could not be legally sold to or possessed by Burmans, unless they had registered themselves as consumers before the end of June 1894. Non-Burman residents are allowed to buy and possess opium under the same restrictions as before. A maximum supply of opium is fixed for each licensed shop, calculated according to the number of legitimate consumers that are likely to frequent such shop. There were 52 licensed opium shops in Burma, and opium was sold to legitimate consumers from the Government treasury at four places where the number of such persons is not large enough to warrant the licensing of a shop. The total issues of opium permissible for the whole province were 882 maunds, against which 752 maunds of licit opium were consumed. In Lower Burma the retail price of opium, which had doubled under these regulations, experienced a fall during the year. The total net revenue per seer of licit opium consumed in Burma was 136 rupees. Regarding the apparent effect of the prohibition of opium among Burmans, the Local Government say :—

"The weight of opinion among district officers appears to support the view that opium is being supplanted to a certain extent by *tari* and rice-beer. This is undoubtedly a change for the better, as these liquors are a far less powerful stimulant than opium. The new opium regulations which were issued at the end of 1893 have been in force for nearly five years, and their effect should by this time be apparent. Local officers are now being consulted as to the extent to which they have fulfilled the purpose for which they were issued and as to the changes, if any, which should be made in them with a view to adapting them more closely to existing conditions and requirements."

The amount of opium seized during the year was 230,775 tolas, as compared with 154,670 last year, an increase due to greater activity in the detection of smuggling. The working of the special preventive establishments was also more successful than in 1896–97, and the system of rewards is being extended, the rewards paid during the year amounting to 66 per cent. of the penalties inflicted. An attempt is being generally made to enlist the co-operation of the village headmen. From the majority of rural districts it is reported that there is no reason to believe that the taste for liquor or for opium is growing among Burmans.

The number of offences against the opium and excise laws reported in 1897–98 was 4,776, against 4,646 in 1896–97; those in connection with ganja were fewer in number, though the amount confiscated was rather more. The confiscations of liquor also increased from 12,200 gallons to 15,800 gallons, and the illicit stills suppressed numbered 574, as against 465.

Central Provinces.

In the Central Provinces the excise receipts of the past four years have been as follows:—

Receipts from	1894–95.	1895–96.	1896–97.	1897–98.
	Rx.	Rx.	Rx.	Rx.
Country spirits - - -	173,474	148,794	132,232	103,074
Opium - - - -	97,947	91,923	76,592	70,182
Ganja - - - -	27,082	24,501	18,972	16,516
Toddy - - - -	2,240	2,061	2,095	2,123
Miscellaneous - - -	2,905	3,440	2,743	2,696
Total - - - Rx.	303,648	270,719	232,734	194,591

The large decrease of revenue, for a third consecutive year, was due to the depressed condition of the people caused by famine and scarcity over most districts.

The greater part of the country is supplied with spirits from out-stills, of which there were licensed 1,504 at the close of the year, besides 24 central distilleries. The chief changes of the year lay in the creation of new central distilleries and the enlargement of the area served by existing ones, resulting in a reduction of the number of out-stills from 1,706 to 1,504. Contract stills were finally abolished. At the end of 1896–97 the bonded warehouse system in its original form was abandoned, and a modified form introduced in two districts, whereby liquor made by contractors is sold out of bond at fixed strengths and prices. At out-stills the restrictions on manufacture of spirit are the limitation of the number of shops to be supplied, and the limitation of the number and size of the vessels used for distillation. The duty ranges from 1¼ rupees on liquor 50 degrees below proof to 3 rupees a gallon on stronger spirit. Excise.

The number of permanent shops for the retail of country spirits fell from 6,366 to 5,985. The number of temporary shops licensed for different periods was 208, as compared with 209 in the preceding year. No trustworthy information exists regarding the quantity or strength of the liquor made at out-stills, so no estimate of the total liquor consumption can be offered: at most of the shops in the interior the liquor is usually of very low alcoholic strength. The material from which liquor is distilled is everywhere the flower of the mhowa tree. The number of licenses for the retail of imported liquors was 90, against 64 in the previous year. The number of licensed tari shops was 654, or 23 less than in 1896–97. The quantity of Shahjahanpore rum imported into the province rose from 6,709 gallons to 7,933 gallons.

The number of shops licensed for the sale of opium was changed during the year from 920 permanent and 270 temporary shops, or 1,190 in all, to 916 permanent and 269 temporary shops, or 1,185 in all; and the quantity of Government opium sold to the licensed vendors fell from 493 to 462 maunds. No licenses were given for the sale of madak, or opium prepared for smoking. The amount of opium supplied on payment to feudatory chiefs and zemindars was 134 maunds, as compared with 140 maunds in the previous year. The number of permanent shops licensed for the retail sale of ganja and its compounds was 978, or 20 less than in the preceding year; while the number of temporary shops fell from 245 to 238. The quantity of ganja passing into consumption fell from 630 to 609 maunds; while the quantity sold to feudatory chiefs decreased from 157 to 140 maunds.

The number of prosecutions under the excise laws fell from 449 to 300, and from 222 to 150 under the opium laws. The number of licenses for the cultivation of ganja fell from 140 to 95, and the area cultivated was 132 acres, or 50 acres less than in 1896–97.

The excise demand of Assam for the year 1897–98 and previous years was distributed thus:— Assam.

Receipts from	1894–95.	1895–96.	1896–97.	1897–98.
	Rx.	Rx.	Rx.	Rx.
Country spirits	45,276	47,646	55,178	52,752
Imported liquors and rum	2,590	2,088	2,604	2,402
Opium and its compounds	193,534	190,101	186,101	183,589
Ganja and its compounds	30,195	32,281	35,285	35,611
Miscellaneous, including toddy, &c.	171	203	225	284
TOTAL Rx.	271,766	272,319	279,393	274,638

The whole revenue of the year was collected, except Rx. 248, the remisssion of which was mainly due to the earthquake, and Rx. 114, which were outstanding at the end of the year. The revenue from country spirits is raised

Excise.

entirely under the out-still system; the sites of shops are fixed; the right to have one still, and to sell spirits, at each shop, is sold annually by auction. The number of licensed retail shops for country spirits was 217, against 218 in the previous year, besides seven shops on the sanctioned list, but temporarily closed in each year. Much of the liquor is weak; it sells from six annas to one rupee per quart bottle, according to strength, and is chiefly consumed by immigrants. Out of 36 samples tested at different shops in each of the plains districts, 26 were found to be weaker than 50 per cent. below London proof, five samples were from 25 per cent. to 50 per cent. below proof, and five samples were stronger than 25 per cent. below proof. The number of retail shops licensed to sell rum was 12, against 13 in the previous year, and 24 in 1894-95; this rum is sold at from one to two rupees per quart bottle. No rum was distilled in Assam during the year, and 2,432 gallons were imported, as compared with 2,890 in the previous year. The number of shops licensed for the retail sale of foreign liquors, including licenses on board steamers, was 60, as compared with 64 in the previous year. For toddy three licenses, and for rice beer seven licenses, were issued. It having been decided to license experimentally the sale of *bhang* in selected localities, licenses were offered for sale; but no satisfactory offers were received and only one was sold. For the first time since 1880, licenses were issued for the sale of *charas*, to meet the demand of Pathan coolies. None, however, were imported or sold. The number of licensed ganja shops was 272, or four less than in the previous year; and the quantity of ganja disposed of during the year was 623 maunds, against 634 in the year 1896-97. Ganja is consumed chiefly in the two districts of the Surma Valley. The opium revenue again shows a decrease as compared with the previous year; but opium still yields about two-thirds of the total excise revenue of Assam. The issue price of opium in Assam is 37 rupees per seer, as compared with 8½ rupees, the cost of production at the Government factory. The number of licensed opium shops has been gradually reduced from 1,283 in the year 1883-84 to 827 in the year 1895-96, to 804 in the year 1896-97, and 758 this year; while the quantity of licit opium consumed was 1,333 maunds, against 1,331 maunds in the preceding year, 1,494 in the year 1889-90, and 1,874 maunds in the year 1875-76. No shops were licensed for the sale of madak or chandu, preparations of opium for smoking, during the year.

The number of prosecutions under the excise and opium laws fell from 335 to 267, and convictions were obtained against 87 per cent. of the accused persons. Three cases of unlawful cultivation of the poppy were reported; 17 cases of unlawful cultivation of ganja and bhang came to light; and 23 cases of illicit manufacture and sale of spirits were prosecuted. Most of the other cases were of trifling character; one conviction was obtained for the illicit importation of *charas*.

Madras.

The excise revenue of Madras during the last three years was raised thus:—

Receipts from	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
Country spirits	623,747	654,017	610,064
Toddy alone	682,823	702,462	718,622
Foreign liquors and miscellaneous	43,984	48,672	49,152
Opium and other drugs	82,080	82,789	78,666
TOTAL - - - Rx.	1,432,634	1,487,940	1,456,504
Add,—Customs duties on imported liquors	111,481	110,052	109,924
TOTAL REVENUE FROM DRINK AND DRUGS - - Rx.	1,544,115	1,597,992	1,566,438

The total excise revenue showed a decrease of Rx. 31,436, or 2 per cent. less than the previous year; last year there was an increase of 5 per cent. Excise.

Duties on country spirits are raised under the central distillery system over the whole presidency, except in parts of Ganjam, Godavery, and Vizagapatam, most of Malabar and Kistna, and in the first part of the year in South Canara. In these exceptional tracts, which contain a population of five millions, or one-seventh of the presidency, the monopoly of manufacture and vend is farmed out, but the farmer has to pay stipulated rates of duty on all spirit that he distils or sells. Shop licenses are sold by auction in all the towns, and in most of the rural circles. Over nearly the whole of the presidency a tree tax, ranging from one rupee to six rupees a year, is imposed on all palm trees tapped for toddy, while the shops for retail sale of toddy pay a license fee, or outside the tree-tax area are sold by auction to the highest bidder. The rates of still-head duty range from 5⅛ rupees a gallon to 1½ rupees per gallon on proof spirit; while the total taxation, including license fees, exceeds six rupees per gallon of proof spirit in 15 districts or tracts, ranges from five to six rupees in ten districts or tracts, and is between four and five rupees in two areas. Much of the spirit consumed in the Madras Presidency is made from sugar at large distilleries worked with modern appliances. The number of licensed shops for the retail sale of country spirits had been reduced from 17,736 in 1888–89 to 10,636 in 1896–97, and fell to 10,383 in 1897–98; the licenses for the retail sale of foreign liquors were 772, as compared with 754 in the preceding year. The quantity of foreign spirit imported into Madras was 188,585 gallons, or 15,646 gallons less than in the previous year. The total quantity of licit spirits issued from the distilleries, reduced to London proof strength, was 922,200 gallons in 1897–98 against 976,400 gallons in the preceding year.

The system of tree-tax on toddy trees has now been extended to practically the whole of the presidency. The rate of the tax was enhanced in three districts and parts of two other districts during the year. The number of licensed toddy shops was 17,602, against 18,415 in 1896–97, and 26,180 in the year 1888–89. The number of licensed shops for opium decreased from 1,129 in the previous year to 1,067, besides 270 shops licensed for the sale of hemp drugs. The total quantity of opium consumed fell from 77,102 lbs. in the year 1896–97 to 73,876 lbs. in 1897–98. The consumption of ganja and bhang was 1,625 maunds against 2,018 maunds in the previous year.

The total excise revenue of Madras fell on the population (as per census of 1891) at the rate of about 6⅓ annas per head, as compared with 6⅔ annas in the previous year. The number of persons sent for trial for offences against the excise laws was 21,724, against 22,673 in the previous year, and among these, and 1,965 persons whose cases were pending at the beginning of the year, 91 per cent. of convictions were obtained. The number of reported cases of illicit distillation or sale or possession of illicit spirits were 1,380, besides 1,869 cases of smuggling spirits from foreign territory; while the reported cases of illicit manufacture of toddy increased from 11,830 to 11,889.

In the Bombay Presidency the central distillery system obtains nearly everywhere, and in the Dohad and Jhalod talukas of the Panch Mahals, in which the out-still and farming systems have hitherto prevailed, the still-head duty system was introduced during the year. In several of the minor Native States the British system of excise management has been adopted; in some others the chiefs have engaged to manage their excise affairs so as to avoid competition with British excise arrangements. The main peculiarities of the Bombay system are, that spirit must be sold of specified maximum or minimum alcoholic strength; and that in most districts a tax is imposed on every toddy tree that is tapped for its juice. In the Bombay Presidency spirits are distilled from fermented mhowra (or mhowa) flower and from fermented toddy, or juice drawn from incisions in the trunk of three or four species of palms. The general fiscal results of the excise management of the last three years were:— Bombay.

Excise.

Gross Receipts from	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
Locally-made liquors, including toddy	973,760	971,775	937,591
Licenses on foreign liquors	16,784	22,121	16,351
Opium	150,786	150,506	125,050
Intoxicating drugs	38,646	38,650	48,093
Miscellaneous items	10,860	11,053	9,658
TOTAL EXCISE REVENUE Rx.	1,188,836	1,194,105	1,136,743
Import duties on potable liquors for Bombay and Sind	188,202	176,224	181,499
TOTAL REVENUE FROM DRINK AND DRUGS Rx.	1,377,038	1,370,329	1,318,242

The rate of still-head duty ranges from five rupees to one rupee per gallon of London proof spirit; and the average over the greater part of the presidency is about three rupees per gallon.

The number of licensed shops in Bombay and Sind during the past three years is returned at,—

	1895-96.	1896-97.	1897-98.
For—			
Country spirit	2,807	2,805	2,825
Toddy	1,810	1,810	1,765
Drugs other than opium	1,243	1,139	1,198
Opium	1,149	1,141	1,151
Imported liquor (including wholesale licenses)	451	441	471

In one district the rate of still-head duty was raised during the year. The decrease in the revenue from country spirits was attributed to the ravages of plague and famine. The total consumption of excised country spirits in all parts of Bombay, except Sind, during the past two years is returned as equivalent to 2,722,000 gallons of spirit 25° below London proof for 1895-96, to 2,368,000 gallons for 1896-97, and to 2,435,000 gallons for 1897-98. The number of licensed opium shops was 1,141, as compared with 1,146 in the previous year. The consumption of licit opium in the districts of the Bombay Presidency was 1,466 maunds, as compared with 1,555 maunds in the year 1896-97. The quantity of licit opium sold in Native States of the Bombay Presidency was returned at 1,784 maunds, of which 593 maunds were sold in Baroda, and 617 maunds in Kathiawar. The total excise revenues fell on the population of Bombay province at the rate of $8\frac{5}{6}$ annas per head, and in Sind at the rate of $5\frac{1}{2}$ annas per head.

Berar.

In Berar the excise revenue demand of the last three years has been as follows:—

	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
Country spirit	102,485	95,407	85,123
Opium and drugs	25,347	24,756	23,025
Toddy and miscellaneous	2,992	3,818	4,192
Foreign liquors	165	182	205
TOTAL	130,989	124,163	112,545

Over rather less than half of Berar the revenue on country spirits was still raised by selling annually at auction the monopoly of the spirit trade in the circles into which the province was divided; but in the Ellichpur and Akola districts and part of the Amraoti and Buldana districts the central distillery system was last year in force, with a duty of 2 rupees per gallon of liquor 25° below London proof, and one rupee per gallon at 60° below that standard. The number of shops licensed for the retail sale of country spirits was 1,141, or 36 more than in the previous year; and for imported liquors, 20 against 18. The number of licensed toddy shops was 971, as in the preceding year. The number of licensed opium shops was 461, or ten less than in the previous year; and the quantity of opium consumed fell to 307 maunds, against an average of 401 maunds for each of the preceding five years. The number of licensed ganja shops was 127, or 11 fewer than in 1896–97. Under the excise and opium laws, 220 convictions were obtained, as compared with 149 in the previous year. EXCISE.

In Coorg the manufacture of spirits is limited to a central distillery. The total excise and opium revenue in 1897–98 was Rx. 23,200. There were 56 shops licensed to sell country spirits; the licenses for foreign liquors fell from 12 to 11. The consumption of ganja decreased 22 per cent. as compared with 1896–97, and that of country spirit was 33 per cent. lower.

STAMPS.

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts, and under Act I. of 1879 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the stamps receipts, province by province, for the year 1897–98:— STAMPS.

———	Bengal.	North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Sale of court fee stamps -	1,270,720	553,818	281,276	103,920	111,224	61,323	29,755	549,673	343,667	3,305,376
Sale of commercial and other stamps.	501,310	*176,715	152,809	63,201	48,223	25,239	19,553	282,472	186,512	1,456,034
Fines and miscellaneous -	3,911	1,263	6,261	2,986	445	489	202	9,881	49,795	75,633
TOTAL Stamp Revenue of 1897–98	1,775,941	732,196	440,346	170,106	159,892	87,051	49,510	842,026	579,974	4,837,043
TOTAL of 1896–97 -	1,757,429	709,449	459,429	164,983	172,687	90,019	57,799	794,086	571,861	4,777,742

The refunds of the year were Rx. 53,166, and the charges of collection came to Rx. 154,027. There was an increase in revenue of $1\frac{1}{3}$ per cent., as compared with an increase of 1 per cent. in 1896–97, and of 2 per cent. in each of the two previous years, for the whole of India. Court fees still yield about two-thirds of the whole stamp revenue, and general stamps yield something under one-third. In purely agricultural tracts like Berar the court fees revenue is more than double the general stamps revenue; in commercial centres like Bombay, Calcutta, and Rangoon the proportion of revenue yielded by general stamps is much larger. The increase in the year 1897–98 accrued chiefly under court fees, though general stamps yielded slightly more than in 1896–97. The revenue from commercial stamps in Bengal and the Punjab did not quite maintain the high figures of last year; the stamp revenue in the Punjab showed a decline from last year, though still higher than that in 1895–96; satisfactory increases occurred in Burma, Madras, and the North-Western Provinces; elsewhere the stamp revenue was virtually stationary.

CUSTOMS.

CUSTOMS.

In a previous year's Statement it was said that "in consequence of the great fall in the gold value of silver, and the resulting increase in the loss by exchange on remittances to meet Indian expenditure in England, it was found necessary to re-impose, in March 1894, import duties, which had been abolished in 1882." The general duties were levied from the 10th of March 1894, at the rate of 5 per cent. *ad valorem*, with the exception of the petroleum duty, which was raised to one anna per gallon. At first cotton goods were exempted, but in December 1894 a 5 per cent. duty was imposed on imported cotton goods and yarns; while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India.

The appended table shows the customs revenue for four years, namely, 1894–95, during which the new tariff was in force with the addition of the 5 per cent. duty on cotton goods from the 27th of December 1894; 1895–96, during which the tariff remained as at the end of the previous year, until the reduction of the cotton duties in February 1896; 1896–97 and 1897–98, during the whole of which the tariff remained unchanged, the duty on woven cotton goods being 3½ per cent., and cotton yarns being on the free list.

Customs Receipts after deduction of Refunds and Drawbacks.

	1894–95.	1895–96.	1896–97.	1897–98.
Sea Customs:	Rx.	Rx.	Rx.	Rx.
Export duty on rice	891,026	914,371	737,270	709,285
Import duty on arms, &c.	15,189	17,105	19,669	17,798
„ „ Liquors	609,533	661,004	656,811	659,739
„ „ Petroleum and other oils	319,677	406,172	503,925	554,375
„ „ Other articles	1,879,073	2,795,561	2,289,245	2,435,608
Miscellaneous	10,041	2,656	10,976	11,016
TOTAL Sea Customs - Rx.	3,724,539	4,796,869	4,217,926	4,387,821
Land Customs:				
Imports	11,629	11,774	10,325	8,444
Exports	12,161	8,238	14,713	21,540
Miscellaneous	36	83	111	64
TOTAL Land Customs - Rx.	23,826	20,095	25,149	30,048
Excise duty on cotton manufactures	10,838	60,948	109,159	113,895
Miscellaneous (including warehouse and wharf rents)	16,160	28,009	19,940	23,309
TOTAL Customs Revenue - Rx.	3,775,363	4,905,921	4,372,174	4,555,073

There had been a decrease of Rx. 533,000 in 1896–97, partly due to the reduction in import duties on cotton goods and partly to the shrinkage in

trade caused by the famine and plague; in 1897-98 there was a recovery to the extent of Rx. 183,000. CUSTOMS.

The total import duty "on other articles," in each of the two last years is made up of the following items:—

	1896-97.	1897-98.
	Rx.	Rx.
Duty on articles of food and drink (not being alcoholic liquors) - -	272,611	369,042
„ chemicals, &c. - - - -	90,352	105,583
„ cotton manufactures - - -	898,182	784,267
„ silver bullion and coin - -	196,830	428,599
„ other metals and manufactures of metals - - - - - -	426,235	218,834
„ other raw materials and manufactured and unmanufactured articles	405,035	529,283
TOTAL - - - - Rx.	2,289,245	2,435,608
The total yield of the cotton duties was:		
Customs duties - - - - -	898,182	784,267
„ „ (land) - - - -	676	356
Excise - - - - - - -	109,159	113,895
TOTAL - - - Rx.	1,008,017	898,518

Regarding the working of the excise duties on cotton goods complete report is available for the Bombay Presidency, where 53 cotton factories produced excisable woven goods, including three hosiery factories, while 58 factories produced yarn only. The total output of the cotton mills in the British districts of Bombay for 1897-98 was 323 million lbs. of yarn and 70 million lbs. of woven goods, showing altogether an increase of 6⅔ per cent. on the figures of 1896-97. The net excise revenue realised on cotton goods in Bombay was Rx. 94,000, as compared with Rx. 89,000 in the previous year, and Rx. 56,000 in 1895-96, chiefly under the old Act, which taxed fine yarns only. Production of cotton goods has partially recovered from the effects of the plague. Drawback was paid, without friction, on more than 8 million lbs. of exported woven goods. The valuation of the bulk of goods was 6½ annas per lb. Inspections were made of mills from time to time to secure correct return of goods; mill owners gave every facility to inspecting officers; and the excise duty was collected without difficulty. The only mills in Native States, that might compete with mills in British territory, are situated in Bhaunagar and Baroda. But in both of these States an excise duty is now levied on cotton goods.

PROVINCIAL RATES.

PROVINCIAL RATES.

Provincial rates are levied for the most part on the land. They are imposed to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. In the temporarily settled provinces the rates take the form of a percentage on the land revenue, and the revenue payers and tenants have to pay that percentage in addition to the land revenue. In Bengal the cesses are levied by a rate upon the rental, and are payable partly by landlord and partly by tenant. The net receipts under this head, after deduction of the small establishment charges, were Rx. 3,665,000 in the year 1897–98, as against Rx. 3,473,000 in the preceding year. In Bengal about half of the rates belongs to the Provincial Government; in the North-Western Provinces nearly one-quarter is similarly credited; in other provinces the whole, or almost the whole, of the income from provincial rates is spent on local objects by local bodies. The provincial rates increase with the land revenue, and in Bengal the road cess may be increased by votes of the district boards within the legal maximum, or by alteration in the periodical valuations of the rental. The provincial rates are, for the most part, collected punctually with the land revenue and by the same agency.

The following is a table of the rates and cesses collected during the year:—

	India General.	Bengal.	Assam.	North-Western Provinces, and Oudh.	Punjab.	Central Provinces.	Burma (Lower).	Madras.	Bombay.	TOTAL.
REVENUE.										
District Local Fund:—	Rx.	Rx.	Rx.	Rx	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Cess on Land for expenditure on Roads, Schools, Hospitals, and general purposes.	2,120	444,271	64,600	527,042	229,879	37,607	124,650	560,096	279,466	2,269,731
Provincial:										
Cess on Land for expenditure on Roads, Schools, &c.	—	444,315	—	—	—	212	—	—	—	444,527
Cess on Land for Famine Assurance, Canals, and Railways.	—	—	—	119,454	60,186	17,564	—	—	—	197,204
Cess on Land for District Post - -	—	37,397	—	—	11,397	4,205	—	—	—	52,999
Cess on Land for Village Service and Patwaries.	3,357	—	—	232,387	140,084	37,654	—	224,010	40,907	678,399
Assessment on Wards' Estates for Establishment Charges.	—	14,155	—	—	2,319	—	—	—	—	16,474
Miscellaneous - - - - -	5,751	—	—	52,062	422	—	—	5,721	—	63,956
TOTAL Receipts - - -	11,228	940,138	64,600	930,945	444,287	97,242	124,650	789,829	320,373	3,723,290
Refunds and charges of collection - -	—	41,094	401	1,516	1,670	675	5,186	1,188	6,530	58,260
Net Receipts, 1896–97 - - -	11,228	899,044	64,199	929,429	442,617	96,567	119,464	788,639	313,843	3,665,030
Net Receipts, 1895–96 - - -	10,370	868,658	63,702	873,621	408,252	104,953	109,657	741,263	292,475	3,472,951

INCOME TAX.

INCOME TAX. General.

There was no change in the Income Tax Law (Act II. of 1886) during the year, or in the rate at which the tax was levied. The principal provisions of the Act are that incomes derived from salaries, pensions, and interest on securities, if amounting to Rs. 2,000 per annum, should pay five pie in the rupee (2·6 per cent.), and if less than Rs. 2,000, four pie in the rupee (about 2 per cent.); that companies should pay five pie in the rupee on their net profits; and that income derived from other sources should pay according to a graded scale from Rs. 10 on Rs. 500 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pie in the rupee. All incomes of less than Rs. 500 a year are exempted, and the tax is not levied on profits or incomes derived from agriculture (which are otherwise taxed under legislation imposed in 1877–78), or on military salaries of less than Rs. 500 a month.

The receipts and charges on account of income tax in each province were as follows :— INCOME TAX.

	Gross Collections.	Refunds.	Net Receipts.	Charges for Assessment and Collection.
	Rx.	Rx.	Rx.	Rx.
Bengal	503,884	2,169	501,715	18,977
North-Western Provinces and Oudh	250,129	2,592	247,537	212
Punjab	153,723	863	152,860	1,163
Burma	101,496	3,730	97,766	3,322
Central Provinces	49,039	384	48,655	82
Assam	31,691	57	31,634	191
India, General	145,322	686	144,636	106
Madras	266,446	1,788	264,658	2,802
Bombay	393,735	1,963	391,772	5,423
TOTAL, 1897-98	1,895,465	14,232	1,881,233	32,278
TOTAL, 1896-97	1,872,809	12,461	1,860,348	30,322

Results of the income tax during 1886-94.

A review of the results of the Income Tax Act was published in November, 1895, showing how the tax had been worked during the nine years 1886–94, for which period the law and the rates of taxation remained the same. During the nine years the income tax revenue had increased from Rx. 1,369,000 to Rx. 1,709,000, or by 25 per cent., while the costs of collection have fallen from Rx. 53,000 to Rx. 31,000, or 1¾ per cent. on the receipts. Of the total revenue 23½ per cent. is contributed by the three cities of Calcutta, Bombay and Madras; 30 per cent. accrues from salaries and pensions, and 6 per cent. from interest on securities. The total number of persons assessed to income tax in India was 436,283, or one in 527 of the whole population, in the year 1893–94; and the average incidence of the impost on each taxpayer was Rx. 3½. Outside the Presidency towns and Rangoon the incidence was much smaller; for instance, in Calcutta, Bombay and Rangoon, the tax fell at over two rupees per head of the population, whereas outside these cities the incidence of the tax on the population ranged from 0·03 to 0·10 of a rupee per head. Under Part II. of the Act [Profits of Companies], the largest contributions to the Income Tax revenue in 1893–94 were made by

	Rx.
Railway Companies	29,000
Cotton spinning and weaving companies	21,000
Banking Companies	13,000

Under Part IV. [other sources of income, not being salaries and pensions, profits of companies, or interest on securities], the largest contributions were made under Professions by barristers and other legal practitioners — 49,000

Under Trade and Commerce, by money lenders	291,000
general merchants	88,000
piece-goods dealers	54,000
grain dealers	51,000
Under Property, by house owners	49,000

Income derived from land is not, as stated above, liable to income tax.

Out of the total income tax [Rx. 1,127,000] paid under Parts II. and IV. [Profits of Companies and Trades or Professions], somewhat more than half was paid under Classes I. to VI. by persons enjoying incomes of Rx. 50 to Rx. 200; while incomes under Classes I. and II., ranging from Rx. 50 to Rx. 100 a year, yielded about one-fifth of the total receipts from all classes.

INCOME TAX.

The following paragraphs give provincial details for the year 1897-98 :—

Provincial details.

Bengal.

In Bengal the number of objections against 113,625 assessments was 11,036, as compared with 10,493 and 10,795 in the two previous years; 33·3 per cent. of the objectors were more or less successful, as against 32·5 per cent. in the previous year; and the final demand was 2·6 per cent. below the original assessments. The total receipts in Bengal, Rx. 494,700, show an increase of Rx. 3,000, or ·6 per cent., as compared with 1896-97.

The amounts realised under the several schedules for the last three years, as returned by the Bengal Government, were, exclusive of arrear receipts:—

—	—	1895-96.	1896-97.	1897-98.
		Rx.	Rx.	Rx.
I.	Salaries and pensions - -	103,000	105,000	108,000
II.	Profits of companies - -	38,000	46,000	42,000
III.	Interest on securities - -	7,000	7,000	8,000
IV.	Trades, professions, &c. - -	317,000	318,000	322,000

The proportion of persons assessed to the total population of Bengal was 1 to 637, and the incidence of the tax was one rupee to every 16·2 persons; outside the city of Calcutta the incidence was one rupee to every 32·2 persons of the total population. Nearly 50 per cent. of the income tax revenue of Bengal accrued in the city of Calcutta.

North-Western Provinces and Oudh.

In the North-Western Provinces and Oudh, out of 67,616 assessments on trades and professions, the number of objections was 25,590; 27·5 per cent. of the objectors were in some degree successful, the proportion in the previous year having been 30·6; and the final demand was 6·3 per cent. below the original assessment. Notices of arrear were issued in 3,093 cases, and in 436 cases further coercive measures had to be taken against defaulters; while in 113 cases attached property had to be sold for arrears. The total receipts, Rx. 240,900, were about the same as in the previous year. One person was assessed in every 670 of the whole population. Of the whole tax over 74 per cent. was paid by trades and professions, and 14 per cent. by Government servants on their salaries.

Punjab.

In the Punjab objections were filed against 34 per cent. of the original assessments under Part IV.; of these, 34 per cent. were successful, as in the year 1896-97; and the final demand was 8·3 per cent. below the original assessment. Rx. 967 of the year's demand were uncollected at the end of March. The total receipts in the Punjab were Rx. 138,700, showing an increase of Rx. 7,100, or 5½ per cent., on the receipts of the previous year, the increase being mainly under Part IV., namely, assessments on trading and professional incomes. More than 20 per cent. of the whole collections accrued on salaries and pensions.

Burma.

In Burma the income tax was applied to all Government servants and to 93 towns in the lower province, and it was extended to Mandalay in Upper Burma during the year; income taxpayers were exempted from capitation tax. In the year 1897-98 the number of objections preferred against 14,694 assessments under Part IV. was 3,547, of which 52 per cent. were more or less successful; and the final demand was 19·5 per cent. below the total of the original assessments. The initial assessments in Mandalay under Part IV. numbered 2,642, for an amount of Rx. 8,302; there were 943 appeals, of which 209 were completely successful; reductions were allowed on a liberal scale, and the final demand was Rx. 5,088, nearly all of which was collected during the year. Against 108 assessments under Part II. (Profits of Companies) two objections were preferred, of which one was partly successful. In 794 cases warrants were issued against defaulters, as compared with 917 in 1896-97, and 895 in 1895-96; property was sold in 11 cases only. Of the whole income tax revenue in Burma in 1897-98, 27 per cent. was paid on salaries, pensions, and

securities. The total receipts of the year 1897-98 were Rx. 93,900, as compared with Rx. 77,800 in the previous year; the increase was attributed partly to increased prosperity and partly to the inclusion of Mandalay. INCOME TAX.

In Assam the yield of the tax was two per cent. more than in the previous year. The number of objections was 937, against 5,524 assessments under Part IV.; 413 objections were successful in whole or in part; and the final demand under Part IV. was more than 3 per cent. below the original assessment. The number of processes for the realisation of arrears was 54 above that of the previous year; and in 34 cases the property of defaulters was sold for arrears, against 18 in 1896-97. The proportion of collections on salaries and pensions paid by Government was 14·7 per cent., on salaries paid by companies 46 per cent., and on commerce 21 per cent.. of the whole, income tax revenue. Assam.

The total number of persons finally assessed to income tax in Madras was 75,469, as compared with 75,435 in the previous year; of these 88 per cent. were assessed on incomes of less than Rx. 200. Against 71,438 assessments under Part IV., 27,185 objections were preferred, of which 6,573, or 24 per cent., were wholly or partly successful. The final demand was 7 per cent. below the original assessment. In 43,590 cases notices had to be issued against defaulters, and in 305 cases property was sold on account of arrears. The collections for the year were Rx. 241,704 showing a slight increase over those for 1896-97. The year was not prosperous, but as assessment was based on the profits of the preceding year, the collection did not show this; there was, in fact, a slight increase in the receipts under Part IV. (Trades and Professions); 73 per cent. of the total demand came under that part, and 21 per cent. was paid on salaries. The assessments fell at the rate of one in 421 on the whole population, and at 29⅔ rupees on each taxpayer. Madras.

Almost half the income tax demand of the Bombay Presidency accrued in the city of Bombay, where the average incidence on each taxpayer was 74 rupees, against an average of 25 rupees in the interior. The original number of persons assessed to the tax was 84,254, which number was reduced on revision and appeal to 80,757; and the final demand for the whole Presidency including arrears, was Rx. 404,000, against original assessments amounting to Rx. 420,000. The share of the final demand assessed upon official salaries, pensions, and securities was about 15 per cent. of the whole. The total collections, including arrears and penalties, were Rx. 383,000, against Rx. 389,000 in the preceding year. The decrease occurred chiefly in Bombay city, and was due in part to the effect of the plague and famine on commerce. In Bombay city, apart from the tax on salaries and securities, the income tax collections on account of the year were Rx. 139,000, as compared with Rx. 126,000 in the districts of Bombay and Sind outside the Presidency town. Bombay

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

Surveys.

The work of "The Survey of India" is divided under five heads, namely:—

1. Trigonometrical Survey.
2. Topographical and Forest Survey.
3. Cadastral Survey.
4. Special Surveys and Explorations.
5. Map Production.

The account given below of progress under heads one, two, four and five relates to the work of the season 1896–97.

Trigonometrical.

Out of 21 survey parties, and two small survey detachments, employed during the year, one party (No. 24) was engaged on trigonometrical work in Baluchistan. The triangulation, which was begun in the previous year, was carried across the Las Bela plain, and closed at the eastern end of the Kej Valley. The principal series extended over a direct distance of 75 miles, and embraced an area of 1,380 square miles; while secondary triangulation to intersected points was completed over an area of 1,200 square miles. Horizontal and vertical angles were taken at nine principal and two secondary stations; while astronomical observations were taken for azimuth at one station.

Topographical.

Six parties were engaged on topographical work, and accomplished in all 14,460 square miles of topographical survey, as against 19,798 in the preceding year. Party No. 10, having completed its work in the Southern Mahratta country, was transferred to Upper Burma, to join Parties Nos. 11 and 21. The difference in the character of the country, and other causes, prevented this party from making much progress during the year. The Shan States country in which these three parties were at work, is hilly and covered for the most part with forest. The total outturn of work by the three parties was 5,747 square miles surveyed in detail, chiefly on the 1-inch scale, and 8,690 square miles triangulated in advance. Geographical survey was also carried out by Parties Nos. 11 and 21, over 11,718 square miles of new country. The parties were to be reinforced for the ensuing season. No. 12 Party continued the survey of Sind on the 2-inch scale, and completed an area of 2,244 square miles. A large-scale survey of the Layari quarter of Karachi was also carried out by this party. The work of No. 15 Party consisted in topographical survey of 2,814 square miles, chiefly on the 1-inch scale, in Sind, together with minor surveys, and triangulation of 1,940 square miles. The Himalaya party, No. 18, surveyed 446 square miles on the 4-inch scale, and 364 on the 2-inch scale, chiefly in the Mandi, Suket, Sirmur, and Simla Hill States. Classification of forests and soils was also carried out over 181 square miles in British territory. The country surveyed included some very high ground; some peaks being 20,000 feet high, and 29 glaciers, some of great extent.

Forest Survey.

Five parties were employed in mapping the forest reserves, No. 9 Party being transferred to Madras, from traverse surveying in the Central Provinces. Party No. 14 completed the survey of the Damoh forests, and began the Bilaspur forests of the Central Provinces, where they effected 74 square miles of detail survey, and triangulated in advance a considerable area. The cost of the detail work was 70½ rupees per square mile. Party No. 17 was engaged in the reserved forests of the Poona, Thana, Ahmednagar, and North Kanara districts of Bombay; 723 square miles of detail survey were accomplished; the rates of work on the 4-inch scale was 78 rupees per square mile, as compared with 67 rupees in the previous year. Parties No. 19 and No. 9 were engaged in the forest reserves of the Kurnool, Salem, and North Arcot districts and on the Pachamalai range in Trichinopoly, respectively; 1,148 square miles of detailed

survey were accomplished. The latter of these two Madras parties, being new both to the work and to the climate, was unable to accomplish very much. Party No. 20 effected the survey of 501 square miles of reserved forest in the Pegu and Toungoo districts of Burma. The whole area of forest surveys accomplished by all these parties during the year was 3,260 square miles, against 3,202 square miles in the previous year; a further area of 1,563 square miles of forest was surveyed by the survey branch of the Forest Department. Thus, a detail survey was effected of 4,823 square miles of forest reserves, in all, during the year 1896-97. Surveys.

The work of the cadastral and traverse survey parties is noticed below under each of the provinces where they were employed. Cadastral Survey.

Observations were taken during the year for redetermining the value of the latitude of Madras, and the result combined with a value obtained by Mr. Michie Smith, the Government Astronomer, Madras, and two previous values gave a mean value for Madras of 13° 4′ 8″ ·02 north latitude. Geodetic.

The demand for maps again showed some decrease. The number of new maps and new editions of maps completed during the year was satisfactory; while 5,493 cadastral maps were prepared for publication. In all, 853,945 copies of maps and plates of different kinds were printed off during the year, besides 529,664 impressions from type, 72,246 heliogravure prints, and 3,621 photographic prints. Among notable new maps of the year were charts of parts of the south-east and north-east frontiers, which are now completed, maps of Upper Burma, and forest maps. Map printing.

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables, were continued during the year at 12 stations, of which seven are permanent and five are temporary for five years; the Trincomalee station was closed during 1896. The tidal operations of the year are reported to have been successful, with the exception of those at Diamond Island, where the pipes became choked. The total number of ports treated between 1877 and 1897, for which tide tables are issued, was 37, in 26 of which operations had been closed. So far as predictions of high water were concerned, 96 per cent. of the entries in the tables were correct within eight inches of actual heights at open coast stations, and 63 per cent. at riverain stations; while as to time of high water, 70 and 56 per cent. respectively of the entries were correct within 15 minutes. All but three of the observatories were inspected during the year, and steps were taken to correct shortcomings or deficiencies detected. Tidal and levelling operations.

The levelling operations of the season consisted in the completion of the Vizagapatam-Bilaspur line of double levels, by the connection of Potanghi with Vizianagram; and in a considerable advance northwards from Bilaspur to within 150 miles of Allahabad. The total length of double-levelling accomplished was 291½ miles, much of it over rough, hilly, sparsely-peopled country; the total rises and falls amounted to 12,818 feet; the instruments were set up at 3,239 stations; and the heights of 23 embedded bench marks, of 370 inscribed bench marks, and of five Great Trigonometrical Survey stations, were determined.

In Upper Burma, an area of 11,718 square miles was geographically surveyed, while 2,000 square miles of triangulation were also completed. The aggregate areas geographically surveyed during the year on the eastern and western frontiers amounted to 78,718 square miles. Explorations.

The survey vessels "Investigator" and "Nancowry" were employed on marine surveys throughout the open season of 1896-97, the staff being employed in the chart office during the rainy months. The principal coast survey work was off the Andamans and in the Gulf of Martaban at the mouth of the Rangoon river. Off the Andamans, sundry rocks and shoals were discovered, which might cause serious risks to vessels if the waters had remained unsurveyed. Considerable changes were found to have occurred in waters and shoals of the Martaban Gulf. The survey of the Bombay Harbour region, and Marine Survey.

Surveys.

of the Thana and Bassein creeks, adjacent thereto, was finished in the previous year, and new charts were prepared. The directions for navigating the Rangoon river were revised and altered in some respects. The naturalist on board the "Investigator" reports that the hauls of the trawl from the mud of the Martaban Gulf yielded little of interest, but one haul from a coral bottom gave several specimens; investigations into the littoral sea fauna of the Andamans were of interest, and one haul at a depth of 400 fathoms yielded many valuable and some new specimens. But on the whole the finds of the year were not rich.

Meteorology.

During the year 1897–98 meteorological observations were recorded at 227 stations, stretching from Bagdad, Zanzibar, and Aden on the west, to Dibrogarh and Bhamo on the east, and from Resht on the Caspian Sea, Kabul and Kashgar on the north, to the Nicobar, Seychelles, and Minicoy Islands, and Mergui on the south. Of these stations 174 were maintained by the Government of India, subject to the immediate control of the meteorological officers. The Minicoy observatory, which was closed in 1896, has been transferred to the Lighthouse, and was reopened during 1897. The Government observatory at Rajamundry was closed, and a new one was opened at Car Nicobar in the Nicobar Islands. Besides these changes, new observatories have been established at Oodeypore and Kotah in Rajputana, Parachinar in the Punjab, and at places in Madras and the States of Kashmir and Hyderabad. Three stations have been closed, one at Mardan, and one each in Assam and Hyderabad. Full information was obtained from the Himalayan and sub-Himalayan stations concerning the snowfall of the year, and a forecast was published in June of the probable effect of the snowfall on the ensuing south-west monsoon. Of the 174 observing stations belonging to the Government,—

Four were observatories of the first class, where autographically registering instruments are kept to record rainfall, barometric and thermometric readings, humidity, wind force, and solar-actinometric observations;

Sixty-one were second-class stations, where less frequent observations are recorded;

One hundred and nine were third-class stations, which record twice or only once a day the rainfall, the thermometric maxima and minima, and the range of the barometer.

These observations are communicated in some cases by telegraph to the head-quarters of the Meteorological Department, the chief officers of which are responsible for inspecting observatories and stations, so that instruments may be kept in good order and observations may be faithfully recorded; the Department also undertakes the publication of storm warnings, seasonal forecasts, and periodical compilations of meteorological results. Besides the data furnished by the observatories described above, returns were kept of the rainfall at 2,240 stations.

The forecast of the probable rainfall for the monsoon of 1897 was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, and on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The forecast predicted a generally normal and favourable rainfall over the greater part of India; but indicated that the rainfall might be short in Sind, Cutch, Rajputana, and parts of the Punjab.

So far as Sind is concerned, this forecast was not verified, and there was an unexpected deficiency of rain in Central India, the fall being 15 per cent. below normal; but the general character of the monsoon was favourable, Berar (20 per cent. below normal) and Central India being the only districts in which the rainfall was not either nearly equal to or slightly in excess of the normal amount. The forecast for the winter rains was not quite so successful. They fell in good quantity in the north-west and the centre of India, but in the north-east and in Berar were below the normal.

The average and actual rainfall of the years 1896 and 1897 in the region into which India has been divided were as follows:— SURVEYS.

Meteorological Division.	Area, Square Miles.	Number of Stations.	Normal Rainfall.	Actual Rainfall, 1896.	Actual Rainfall, 1897.
			Inches.	*Inches.*	*Inches.*
I.—Punjab Plains	120,000	29	19·30	13·35	18·41
II.—North-Western Provinces and Oudh.	83,500	44	38·11	28·69	41·39
III.—Rajputana	67,000	19	22·13	24·13	24·43
IV.—Central India States	91,000	20	34·52	36·22	37·53
V.—Bihar	30,000	15	41·48	32·52	50·48
VI.—Western Bengal	38,000	10	42·62	45·59	52·50
VII.—Lower Bengal	54,000	28	50·41	52·86	64·53
VIII.—Assam and Cachar	61,000	16	90·03	78·26	94·48
IX.—Orissa and Northern Circars	27,000	16	52·16	38·36	52·10
X.—Central Provinces, South	61,000	17	48·15	56·77	50·21
XI.—Berar and Khandesh	43,000	13	31·76	31·97	32·72
XII.—Gujarat	54,500	13	25·53	36·67	33·08
XIII.—Sind and Cutch	68,000	10	5·98	8·74	9·87
XIV.—North Deccan	48,000	13	31·97	30·51	33·12
XV.—Konkan and Ghâts	16,000	11	121·34	160·41	152·28
XVI.—Malabar and Ghâts	18,000	8	108·50	134·92	146·33
XVII.—Hyderabad	74,000	16	37·69	23·36	28·72
XVIII.—Mysore and Bellary	58,000	18	31·50	25·78	32·19
XIX.—Carnatic	72,000	37	42·61	38·23	32·25
XX.—Arakan	11,000	7	121·99	137·21	144·47
XXI.—Pegu	32,500	7	64·08	75·94	72·91
XXII.—Tenasserim	10,500	4	156·96	199·78	177·55
XXIII.—Upper Burma	?	13	41·55	33·31	35·67

Over the whole of India the rainfall was ·15 inch below the normal. It was over 20 per cent. below normal in only three regions, Berar, Gujarat, and the central part of the east coast of Madras. In Sind, Malabar, and parts of the Punjab it was more than 25 per cent. in excess of the normal.

Eleven notable storms were observed in the Bay of Bengal, the most severe of which was the cyclone which passed over the Chittagong coast on the 24th October and did much damage. Eight storms, none of which was severe, were reported from the west coast of India. Storm signalling was effectively performed at Bombay and Calcutta; ample and definite warning is said to have been given of all the more important storms that visited the coasts of India during the year. These warnings were sent to 21 ports on the Bay of Bengal and to 22 ports on the west coast. The reorganisation of the storm-signalling system was undertaken during the year, and a committee on the subject recommended that signals should emanate from one source, and that a more complete system should be used for large ports than for small. These recommendations were put into force on the 1st April 1898. The system of flood warnings to canal, civil, and railway officers continued to be useful; 277 such warnings were issued by the Meteorological Department during the year; in the previous season 289 of these warnings were issued. The usual daily weather reports and charts, weekly weather reports published in the official gazettes, and the monthly weather report giving a summary of the barometrical, wind, and thermometric observations, and of the variations from normal conditions, were published regularly.

The chief events of the year from this point of view were the cyclone mentioned above, the earthquake of the 12th June 1897, and the eclipse of the sun on the 22nd January 1898. The wind during the cyclone had an estimated velocity of 80 miles an hour and caused a series of storm waves to sweep over the coast, and a large number of buildings, as well as crops and trees, were levelled to the ground, and much damage was done in the harbour. The loss of life is estimated at 14,000. The earthquake, of which mention was made on page 32 of last year's statement, affected the whole of Assam and the north-eastern portion of Bengal, from Calcutta northwards. It is reported to have caused 135 deaths in Bengal and 1,542 in Assam, and had it not fortunately occurred at a time when people were out of doors, many more must

SURVEYS.

have perished. The damage was estimated at many crores of rupees, Government roads and buildings alone having suffered to the extent of Rx. 480,000; parts of the Assam-Bengal railway were seriously injured. An inquiry conducted by the Geological Department leads to the conclusion that it was due to a nearly horizontal fracture or "thrust-plane," along which the upper part of the earth's crust was pushed over the lower.

The eclipse of the sun was observed by a party of the Survey of India at Dumraon, and by parties sent out by the Joint Eclipse Committee from England at Viziadrug, Pulgaon, and Sahdol. There were also other parties, sent by the British Astronomical Association, for which all necessary assistance was provided by the Government of India. Generally speaking, the conditions of observation were favourable, and good results were obtained.

Among the other special observations taken during the year were wind observations, solar and terrestrial radiation observations, underground temperature observations, and bright sunshine observations.

The number of stations inspected by officers of the Meteorological Department was 44, of which 26 observatories were found to be "satisfactory" or "very satisfactory"; 13 were said to be "fair"; and five were in bad condition.

Rainfall of 1898.

The general history of the rainfall of the year 1898 was as follows:—In the months of January and February the rainfall was in excess of the normal supply, and was abundant in the Punjab and North-West Provinces, where the winter rains are specially valuable for the spring crops. During the hot months of March to May the rainfall was normal, save in Bengal and Assam, where a large deficiency in the usual summer rain seriously affected the tea industry. During the south-west monsoon, or ordinary rainy season, from the end of May to the middle of October, the rainfall was normal or above normal over the greater part of India, but was short in the Punjab, in Rajputana, in Berar, Upper Burma, and part of the north-east coast of Madras. The latter rains, from the middle of October to the end of December, were far short of normal, save on the south and centre of the Madras Presidency; in those regions, where the north-east monsoon is heavier and more important than in any other part of India, the rainfall of the last three months of 1898 was abundant. The defect in the latter rains was serious in Bengal, Assam, and Burma; happily the Punjab and the North-West Provinces, for the most part, received bountiful rain in January and February 1899, which largely compensated for the shortness of the Christmas rains.

On the whole the rainfall of 1898 was favourable, though the winter harvests were not so abundant as they were in 1897, or as they would have been with a favourable north-east monsoon.

SETTLEMENTS AND CADASTRAL SURVEYS.

SETTLEMENTS AND CADASTRAL SURVEYS.

The term "Settlement" is applied in Indian revenue affairs to the process of assessing the land revenue demand. Occasionally in newly acquired or specially backward tracts, the land revenue is assessed for a short term of years on a general review of the circumstances and capabilities of the land and people concerned; such a process is called a summary settlement. But a regular settlement is a more complicated affair, and consists of many stages. In the first place, every separate estate or holding is demarcated by permanent marks on the ground; and disputes between neighbouring right-holders are investigated and decided. Every estate or holding is then surveyed and mapped, all boundary marks, wells, and buildings being shown on the field or cadastral maps. Sometimes these field surveys and maps are made by trained professional surveyors belonging to the Survey department. When the field surveys are made by local or village surveyors, such agents are trained by, and their work is independently tested by, professional surveyors. The work of the

professional survey, whether cadastral maps or traversing, is based on, and is checked by, the independent scientific work of the Grand Trigonometrical and Topographical Surveys. After the field maps are prepared, the next process is to classify or record each field according to its productive value, as evidenced by its soil, by the amount of its produce, or by the rent it pays. A record is at the same time drawn up of all rents paid, and of all rights, whether landlord rights, or tenant rights, or rights of user, over all the ground, buildings, wells, and trees shown in the map. Then the assessing officer (or settlement officer, as he is often called) compiles the information obtained for all the lands in a circle of villages; and on a review of all these data, of the past fiscal history of the tract, of the range of prices, of the accessibility of markets, and o other general considerations, he proposes rent rates or revenue rates for the several classes of lands in the circle. In the determination of rent rates or revenue rates for any tract, the rainfall, the sub-soil water level, and irrigation facilities are important factors; but improvements made by the owners or occupiers themselves are not held to enhance the assessable value of the land. In re-settlements in the North-West Provinces and Oudh, the rents now enjoyed by the owner of the land are practically the main basis on which the new land revenue is assessed. The rent rates or revenue rates proposed by the settlement officer, and the grounds on which they were based, are then investigated by a superior officer, and are not adopted until they have been accepted or modified by the latter. SETTLEMENTS AND CADASTRA SURVEYS.

In provinces where the zemindari tenure prevails, that is, where single proprietors or proprietary brotherhoods possess large estates of several hundreds or thousands of acres, the State revenue is assessed at an aliquot part (usually about one-half) of the ascertained or assumed rental. The revenue, though it is fixed with reference to acreage rates on the land actually cultivated, is assessed on, and is payable by, each estate as a whole; the assessment remains unchanged for the 30 years or other period of the settlement; the proprietor can bring as much as he likes of his waste or fallow land under the plough; and it is only on re-assessment at the end of the term of the settlement that the State obtains any increase of revenue on account of the extensions of cultivation during the settlement period. In provinces where the ryotwari tenure prevails, that is, where each petty proprietor holds directly from the State, generally cultivates his own land, and has no landlord between himself and the Government, the revenue is separately assessed at an acreage rate on each petty holding, and land revenue becomes payable at once, or after a short term of grace in the case of uncleared lands, on all extensions of cultivation. The ryotwari proprietor is at liberty to throw up his holding or any portion of it, at the beginning of any year, after reasonable notice; the zemindar or large proprietor engages to pay the revenue assessed upon him for the term of the settlement.

After the revenue is assessed and the assessment is sanctioned, copies of the field map, of the schedule of fields, and of the record of rights are made; one copy is given to the proprietor; one copy is lodged in the district court-house; and usually a third copy is placed in the sub-divisional or tahsil office. Through the agency of the local officials of each village or circle the field maps and record of rights are corrected or written up year by year, so as to make them at all times faithful accounts of current rural facts and circumstances. When revisions of assessment are undertaken at the end of the settlement, the village maps and records serve, after adequate testings and corrections, as the basis for re-assessment; and in this way a re-settlement is a shorter and less costly affair, and causes much less harassment to the people than is involved in an original settlement. At the present time re-settlements have been practically completed in Bombay, and are being made in some districts of Madras, the Punjab, Oudh, Berar, and the Central Provinces; also in outlying parts of Bengal. Original settlements are still being prosecuted on the west coast o Madras and in Lower Burma; while in Upper Burma the first settlement of the land revenue has been begun.

The Bengal report brings the account of survey and settlement affairs down to September 1898; settlements were in progress in the three districts of Bengal.

SETTLEMENTS AND CADASTRAL SURVEYS.

Orissa and on the Khurda Government Estate, in Chittagong, in Tipperah, and in some hundreds of petty estates and plots in different parts of the province. Settlements and cadastral survey and record of rights were being prosecuted in North Behar, and on Government estates in Noakhali and elsewhere.

In Orissa, draft records were published for 3,045 villages during the year, and rents were settled for 421,000 tenants in the temporarily settled tracts, besides 7,000 in the Government estate of Khurda and 10,000 in the Madhupur Ward's estate. The rents settled up to date from the commencement show an increase of nearly 15 per cent. in the temporarily settled tracts and of 21 per cent. in the Khurda estate. Assessment of revenue began during the year under report, and a total increase of 57 per cent. resulted on 3,855 estates, the additional revenue being Rx. 47,600. It is reported that the new assessments have been accepted by the zamindars with readiness. The Orissa settlement is expected to be completed by September 1899. In Chittagong the assessment of revenue was completed, and the total increase amounts to Rx. 18,400 or over 50 per cent. In Tipperah the operations on the Maharaja's estates resulted in the settlement of rents for 15,746 small landholders during the year, giving an increase of nearly 21 per cent.; and also for 384 tenure-holders, where the increase was 60 per cent. The total addition to the rent roll since the beginning of operations is Rx. 6,966. The fair rents settled on Government estates in Noakhali during the year yielded an increase of Rx. 1,680, or 36 per cent.

In North Behar cadastral surveys and settlements were prosecuted in the Mozufferpore, Champaran, Saran, and Darbhanga districts, the total area of which is 12,524 square miles. In Mozufferpore the survey and the initial record writing had both been finished. The district contained over four million separate plots or fields, and over one million separate tenancies. Fair rents had to be settled for only 20,345 tenancies, or for about 2 per cent. of all tenancies; and the total rents in these disputed cases were raised 19 per cent. The final record of rights has been prepared and published for 4,311 villages; final publication had still to be completed for 194, out of the total of 4,505 villages in the district. The tenants-at-will were found to be less than one-tenth of all the tenants; and rent rates ranged from 4⅓ rupees per acre for occupancy ryots to $5\frac{1}{10}$ rupees per acre for tenants-at-will. In Champaran the survey and record of rights have been finished, final records having been published for 2,860 villages. Fair rents had to be settled for 110,437 out of a total of 450,000 tenancies, and rents were enhanced on the average 9 per cent. in these disputed cases. Over 92 per cent. of all the tenants were found to possess occupancy rights of some kind; and the rent rates averaged $2\frac{1}{4}$ rupees per acre for both occupancy ryots and tenants-at-will. Most tenants-at-will pay their rents in kind, and their fields are said to be inferior to those held by occupancy ryots. In the 4,296 villages of Saran six-sevenths of the survey work and the record of rights had been done. Fair rents had to be settled for 57,628 tenancies out of a total of 448,874 tenancies, with a resulting enhancement, generally on compromise, of nearly 11 per cent. In Saran rent rates have, so far, ranged from $4\frac{1}{3}$ rupees for occupancy ryots to $3\frac{7}{8}$ rupees for tenants-at-will. The total cost of the work is set down at 8 annas per acre in Mozufferpore and Champaran, and 10 annas per acre in Saran, where the business had been found more complicated. The survey began in the Darbhanga district during the year 1896-97, and 1,617 villages in all have been surveyed; disputes were found to be far more numerous than in other districts, great difficulty being found in ascertaining the existing rents; but attestation was completed in more than a million fields. These disputes were apart from any questions of rent which may have to be faced at a later stage of the operations. Of the amount of Rx. 116,700 demanded up to the end of the year on account of recovery of the cost of the Behar operations, 86 per cent. has been collected.

North-West Provinces and Oudh.

Settlement operations in the North West Provinces made considerable progress; in Garhwal, Unao, Hardoi, Barabanki, Fyzabad, Lucknow, and Partabgarh they were practically at an end last year; in the year 1896–97 the

assessments in Badaun, Rai Bareli, and Sitapur were finished; while progress was made in Bijnor, Sultanpur, and Meerut, and operations were begun in Shahjahanpur, Bahraich, Lalitpur and Kheri. The revised assessments which have been sanctioned by Government up to the end of the year yielded increases ranging from 20 per cent. in Unao to 32 per cent. in Partabgahr, and 53 per cent. in the small hill tract of Garhwal. The cost of the operations varies considerably, being at the rate of Rs. 43 per square mile in Sitapur and Rs. 215 per square mile in Unao; the figure of Rai Bareli, Rs. 136, being the lowest of the districts in which complete revision of maps and records has been made. SETTLEMENTS AND CADASTRAL SURVEYS

The rent-rolls for all districts of the North-West Provinces and Oudh show that the rental demand of the year 1895–96 was Rx. 12,109,000, out of which the landlords realised Rx. 9,125,000 during the year, besides Rx. 1,499,000 on account of arrears of previous years. In consequence of the depression caused by bad seasons, the percentage of rent collections to the total rent demand has fallen from 93 per cent. in 1892–93 to 91 per cent. in 1893–94, and to 88 per cent. in 1895–96; in the latter year the proportion of collections was 86 per cent. in the North-West Provinces, and 93 per cent. in Oudh. The rent-rolls include the reduced rents paid by privileged tenants, and include no computed rents on account of lands cultivated by proprietors. The cultivated area is approximately held thus :—

	N. W. P.	Oudh.
	Acres.	*Acres.*
By cultivating proprietors	5,994,000	1,132,000
„ privileged tenants	933,000	366,000
„ ryots with occupancy rights	8,815,000	113,000
„ tenants-at-will	10,894,000	7,135,000
„ rent free	451,000	401,000

The Imperial Survey Department was not employed on revenue or cadastral survey in the Punjab during the year. Settlement operations were in progress in parts of five districts, and were completed in one of these districts, Dera Ghazi Khan, by the close of the year. As was mentioned in a previous Statement, the work is being done as expeditiously and economically as possible; and no general re-survey is attempted, though on some estates and in occasional tracts the existing field maps are so incorrect as to necessitate a fresh survey. Punjab.

In Mooltan, half the villages have been re-measured; the cost during the year was Rx. 10,700. Operations in the Montgomery district are approaching completion, some re-assessment still remaining to be done. So far, the result has been to reduce the area under fixed and to increase the area under fluctuating assessments.

In Muzaffargarh, settlement was begun at the close of 1897, but not much was done during the year under report. In Dera Ghazi Khan the settlement has been completed; it has cost Rx. 37,000, of which Rx. 23,000 is recoverable from land revenue assignees; it has occupied four years, and it has resulted in an increase of Rx. 11,200 a year in the land revenue, and of Rx. 3,000 in the canal water rent. In Jhelum, survey operations are complete for more than half the villages. Rx. 8,900 were spent during the year, making the cost of re-settlement up to Rx. 20,000 in all. The work is being done by specially trained village officials.

In Lower Burma one party of the Imperial Survey was employed on the cadastral survey of the Toungoo district; this party effected 770 square miles of cadastral work at a cost of Rx. 138 per square mile, besides 887 square miles of topographical survey, and minor operations. Locally trained surveyors accomplished cadastral surveys of 49 square miles of revision survey in the Pegu district, besides smaller areas in Amherst, and 29 square miles in Thayetmyo. Burma.

SETTLEMENTS AND CADASTRAL SURVEYS.

A revised assessment was sanctioned for 611 square miles in the Thaton district; this assessment yielded an increase of nearly 54 per cent. in the land revenue of the tract. Settlement operations were conducted over 796 square miles in the Pegu district, and revision settlement operations over 2,155 square miles in Hanthawaddy, Bassein, and Myaungmya. The 20 Government survey schools have worked successfully, with 425 students on the rolls at the end of the year. The course includes active work with a surveyor in the field. The number of students obtaining certificates during the year was 247, out of 410 presenting themselves for examination; the proportion of passed students was higner than in the previous year. The area under supplementary survey, that is, the area for which the field maps and records are tested and corrected yearly, increased from 21,237 to 22,269 square miles in Lower Burma, and from 3,174 to 4,693 square miles in Upper Burma. The area transferred by private sale was 395,000 acres, against 339,000 in the previous year, for Lower Burma; the increase, it is reported, is partly owing to re-purchase by dispossessed cultivators. The average price paid for land was somewhat higher in most districts, compared with the previous year. The area sub-let to tenants was 1,343,000 acres, or 20 per cent. of the whole cropped area in Lower Burma; the rent realised per acre came to an average of about 8 rupees, as compared with an average revenue rate of about 2 rupees per acre.

One survey party in Upper Burma effected the cadastral survey of 1,461 square miles in parts of four districts, at a cost of 191 rupees per square mile. An area of 789 square miles, chiefly in the Lower Chindwin, was topographically surveyed; and triangulation was completed over 2,556 square miles near Prome. Settlement operations were in progress, but no assessments were sanctioned during the year.

Central Provinces.

In the Central Provinces cadastral survey has now been completed in all tracts where re-survey had begun, except some of the zemindarees or chiefships; during the year the settlement of Saugor was completed; final reports on the Damoh, Wardha, Jubbulpore, and Narsingpur settlements are awaiting submission, while those of Nagpur, Hoshangabad, Chindwara and Saugor are in preparation. Assessment work was in progress at the end of the year in five districts, namely, Nimar, Balaghat, Seoni, Bhandara, and Betul; 4,846 square miles were finally assessed during the year, and the result is estimated to be an annual increase of Rx. 27,200. Assessments and the completion of the record of rights were prosecuted in the chiefships of Chutteesgurh. The total revised assessments framed during the year yielded an increase of Rx. 43,600 in the revenue. The local government is confident that with a return of good harvests the settlements will be found to work well. In some cases the enhancements are spread over a period of three to five years, or have been postponed during bad seasons.

Assam.

Regular survey operations in the province of Assam conducted by No. 6 Party of the survey of India, mainly for the purpose of checking work done by local agency, were effected over 1,543 square miles; cadastral surveys were effected by local agency over 177 square miles in Sylhet, Goalpara, and Darrang. The cadastral survey of Cachar was completed in 1896-97. The re-settlement of the Jaintia tracts in Sylhet was finally approved during the year, and came into operation on the 1st April 1898. Cadastral surveys had been previously completed in the Assam Valley; and the re-settlement of the revenue was finished in 1895-96.

The Statement for 1893-94 described how revised revenue rates had, after the old rates had stood for 26 years, been sanctioned for the districts of the Brahmaputra Valley. During the year 1895-96 the re-classification of all cultivated lands under the new rates was finally completed with the fiscal result of increasing the land revenue of the Assam Valley from Rx. 320,000 in 1890-91 to Rx. 441,000 in 1895-96, or about 37 per cent; some part, however, of this increase was due to the normal extension of cultivation during the five years.

Madras.

In Madras six parties were employed on original cadastral surveys and on re-surveys during the year 1897-98. The area of original survey effected

during the year was 360 square miles, besides 417 square miles of cadastral re-survey. The great decrease shown by these figures, as compared with those of preceding years, is due to the difficulties presented by the tracts dealt with during the year The work was done in parts of fourteen districts, namely, South Canara, Tanjore, Kurnool, Madura, Coimbatore, Kistna, Salem, Godavari, Ganjam, North Arcot, Chingleput, Nilgiris, Trichinopoly, and Tinnevelly. The village accountants (*karnams*) performed a considerable share of the business, which was in most districts much scattered. The forecast now shows 7,573 square miles remaining to be surveyed or re-surveyed; of this area 4,251 square miles are in Kurnool, where the work should be completed by 1902. The number of copies of survey and other maps struck off during the year was 273,000, or 153,000 less than in 1896–97. The cost of the survey during the year was Rx. 48,671; this includes Rx. 12,267 expended on maintaining survey records and boundary marks. The total outlay on survey and settlement, since operations began in 1858, has been Rx. 3,487,000; while the net increase of revenue secured has been Rx. 838,000, or 24 per cent on the outlay.

SETTLEMENTS AND CADASTRAL SURVEYS.

In Bombay, where survey and settlement work are approaching completion, three parties were employed in three British districts during the year, while a small party was employed in and paid by Native States. During the year ending October 1897, the parties in British districts measured an area of 2,074 square miles, and classified an area of 2,507 square miles, besides considerable areas in the Surat district, whereof the old measurement and classification were tested and found correct. The largest area was done in Gujarat, where the cost of the combined operations was 54 rupees per square mile, against 118 in the previous year; in the Konkan the combined cost was 263 rupees per square mile against 345 rupees in 1896–97. Much of the work consisted of testing and correcting old surveys and records, rather than of measuring the land anew; and the average expenditure on survey and classification per square mile for British territory fell from 151 rupees to 97 rupees. The cost of the Department during the year was Rx. 36,290 or Rx. 3,930 less than in the preceding year. The revised assessments of the year amounted to Rx. 75,000, which was Rx. 11,500, or 17·9 per cent. above the previous demand. The total increase of revenue secured by the settlement revision operations in Bombay, up to October 1897, came to Rx. 441,426 a year, or 30 per cent. on the former demand; this increase is outside the yearly increment of revenue due to the extension of cultivation. The cost of the revision operations, exclusive of work in Sind, has been Rx. 718,000.

Bombay.

In Berar, progress was made with re-settlement, begun in consequence of the expiration of the original settlement, which was made on the Bombay system about 30 years ago. The total area to be dealt with is 13,350 square miles, of which 12,134 square miles are either under crop or current fallows. The original measurement and classification of the land are being left untouched, save in a few cases where tests are applied to the old work, or for special causes re-measurement is found necessary. A further year's testing shows the old work of 1861–67 to be in the main good and trustworthy. Out of 3,627 square miles, over which the survey has passed during the past two years, only 94 square miles, or about 2½ per cent., had to be re-surveyed; over 97 per cent. of the area of the old surveys were found to be correct. Three survey parties were at work, consisting chiefly of indigenous surveyors. The survey was completed for 961 villages, against 1,065 in the previous year; re-measurement was effected of 18,000 acres, and for 1,028,000 acres the old work was confirmed, during the field season. The cost of the operations came to 21 rupees per square mile. The party in the Melghat taluka finished its work in 1896–97, and was disbanded. The settlement of this tract confirmed, with but few exceptions, the yoke (or plough) rates previously in existence. Re-settlements were finally completed and announced for one taluka in the Akola district, and one in the Ellichpur district. The operations cost Rs. 25 and Rs. 24 per square mile respectively.

Berar.

VII.

LAND REVENUE.

LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX; AND WARDS' ESTATES.

THE subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the year 1897-98; also the net land revenue for the past two years.

DETAILS of LAND REVENUE and EXPENDITURE.

	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
REVENUE.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Ordinary Land Revenue - -	3,815,633	5,674,375	2,349,386	1,427,146	664,562	549,647	134,170	5,360,035	3,763,463	23,738,50
Recovery of Survey and Settlement Charges.	68,229	—	—	—	—	—	—	—	—	68,22[illegible]
Sale of Proprietary Right of Government in Land.	5,806	45	376	—	—	2	26	2,391	—	8,646
Assessment of alienated lands, less quit-rents.	8,116	—	23,312	—	—	—	—	—	978,275	1,009,703
Sale of Waste Lands and Redemption of Land Revenue.	7,222	3,368	44,214	88	—	2,514	385	14,857	—	72,648
Capitation Tax, or House Tax levied in lieu.	1.504	—	—	925,697	—	—	1,204	—	—	928,405
Receipts for the Improvement of Government Estates.	54,359	—	—	—	—	—	—	—	—	54,359
Fisheries and other Receipts classed as Miscellaneous.	17,350	41,890	93,60[illegible]	293,339	3,102	43,960	12,869	235,595	26,174	767,883
Total Gross Revenue - Rx.	3,978,219	5,719,678	2,510,892	2,646,270	667,754	596,123	148,654	5,612,878	4,767,912	26,648,380
Deduct portion credited to Public Works for irrigation.	—	17,498	57,914	—	—	—	—	675,130	114,196	964,738
Total credited to Land Revenue for 1897-98 - Rx.	3,978,219	5,602,180	2,452,978	2,646,270	667,754	596,123	148,654	4,937 748	4,653,716	25,683,642
Corresponding Total for previous year 1896-97 Rx.	3,876,838	4,986,876	276,63	2.396,961	660,493	606,231	147,471	4.646.065	4,376,924	23,974,489
EXPENDITURE.										
District Administration - -	307,137	364,271	191,518	187,557	82,659	57,275	26,935	431,672	295,188	1,944,042
Survey and Settlement - -	130,717	43,697	45,063	77,350	29,512	9,069	15,129	60,186	40,803	451,586
Land Records and Agriculture -	7,625	366,276	156,313	38,587	64,106	19,265	9,297	180,745	220,650	1,062,864
Charges directly connected with the collection of Land Revenue.	48,180	18,681	8,598	154,587	18,511	14,018	2,123	332,785	130,218	727,701
Total Charges in India - Rx.	493,659	792,925	401,492	457,911	194,788	99,627	53,484	1,005,388	686,919	4,186,913
Charges in England, including exchange - - - - - - - - - - - - Rx.										1,408
Total Charges - - - - - - - - - - - - - - - - Rx.										4,187,601

In India the State, or the monarch, has always enjoyed a share in the rent or profits from the land. This revenue is levied according to an assessment fixed, either permanently or periodically, on estates or holdings. The assessment was fixed permanently 100 years ago on certain tracts paying about Rx. 4,300,000 a year; and it is fixed periodically, for terms of 12 to

30 years, over the rest of India. On large estates, ranging from a few hundred to many thousand acres each, the periodical assessment is a share, generally about one-half, of the rental enjoyed by the proprietors; on small estates cultivated by peasant proprietors the periodical assessment is imposed on the cultivated area at a rate per acre fixed with reference to the productiveness of the land, and representing about one-half of the estimated letting value. The permanently settled tracts comprise the greater part of Bengal, about one-third of Madras, and certain southern districts of the North-West Provinces. Of the temporarily settled tracts, the North-Western Provinces, the Punjab, Oudh, the Central Provinces, and Orissa, mainly contain estates held by proprietary brotherhoods or large proprietors; while in Bombay, Burma, Assam, and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors.

The appended table gives the acreage of land held under various tenures, and the amount over which proprietary right was transferred, either by order of court or by voluntary gift or sale (including generally mortgage with possession, and excluding inheritances and temporary transfers) during the year 1896-97. The figures are in thousands of acres :—

—	Rayatwari (peasant Proprietors).	Zamindari (larger Proprietors) and Village Communities.		Total.	Transfers.
		Permanently settled.	Temporarily settled.		
Upper Burma - - -	49,411	—	3	49,414	22
Lower Burma - - -	53,317	5	155	53,477	399
Assam - - - -	21,400	3,930	1,153	26,483	53†
Bengal - - - -	—	81,879	16,136	98,015	*
North-Western Provinces -	—	6,159	46,438	52,597	960
Oudh - - - -	—	1,113	14,225	15,338	267
Punjab - - - -	—	70,719		70,719	977
Sind - - - -	29,935	—	—	29,935	*
Bombay - - - -	44,861	—	3,955	48,816	*
Central Provinces - -	1,215	—	42,811	44,026	600
Madras - - - -	60,877	29,529	—	90,406	466

* Figures not available.
† Does not include the Sylhet and Goalpara districts, for which figures are not available.

In the permanently settled tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental, or perhaps one twenty-fourth of the gross value of the produce; in the permanently settled tracts of Madras and the North-West Provinces the incidence of the land revenue is somewhat higher. The average advantages of soil and climate are on the whole greater, and the prevailing rates of rent are, on the whole, higher in the permanently settled than in the temporarily settled tracts. In the latter tracts the land revenue represents something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall, and according to the facilities for carrying produce to markets or to the sea-board. Payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves.

LAND REVENUE.

The land revenue of the year 1897–98 shows an increase of Rx. 1,700,000, as compared with the previous year; but, owing to the famine of that year, it may be more usefully compared with the revenue of 1895–96, of which it fell short by Rx. 517,000. This was due to the past famine, which still adversely affected the receipts, as may be gathered from the details given below for each province. In the last nine months of 1898, however, the progress was resumed, and the revenue has been nearly 5 per cent. in advance of the figures for the corresponding period in 1895, the previous highest. The normal increase of the land revenue in ordinary seasons may be seen in the following table:—

	Land Revenue Receipts excluding Receipts due to Irrigation.	Increase or Decrease.
	Rx.	Per Cent.
1861–65 (five years' average) - -	19,931,000	
1866–70 „ „ -	19,990,000	+0·3
1871–75 „ „ - - -	20,965,000	+5·0
1876–80 „ „ (includes the great famine of South India) - -	21,114,000	+0·7
1881–85 „ „ - - -	22,122,000	+4·8
1886–90 „ „ - - -	23,166,000	+4·7
1891–95 „ „ - - -	24,782,000	+7·0
1895–96 - - - - - - -	26,201,000	+5·7
1896–97 (famine year) - - - -	23,974,000	—8·5
1897–98 - - - - - - -	25,684,000	+7·1

A part of the increase during later years was due to the acquisition of Upper Burma, which yielded Rx. 167,000 of land revenue in the year 1886–87, and Rx. 772,000 in the year 1897–98.

The progress of the land revenue, the condition of the landed classes, and the relations of these classes to each other are now noticed province by province.

Bengal

The rainfall of 1897–98 was generally very favourable all over Bengal both during and after the monsoon season. The yield of all food crops over the province was estimated to be equal to a good average crop. Food prices in some districts were still high, but fell much below the figures of 1896–97, the famine year.

The current land revenue demand amounted to Rx. 3,891,800, showing an increase of Rx. 16,500, owing to resettlements of Government estates in parts of Eastern Bengal; the collections on account of the current year's demand showed an increase of Rx. 6,800, amounting to Rx. 3,749,300; the proportion of collections to the total demand was 95¾ per cent., and 99⅓ per cent. to the current demand; the collections were somewhat less punctual than in the previous year, owing to the Chittagong cyclone and other causes. Remissions decreased to Rx. 14,900, as compared with Rx. 17,300 in the previous year. The uncollected arrears at the end of the year were Rx. 155,000, or 11 per cent. more than in the previous year. Sales of land for arrears occurred in 1,645 cases, out of 20,977 cases in which land became liable to sale under the law; the estates sold were all small. In 172,800 cases, against 174,572 in the previous year, arrears of public demand other than land revenue were taken into court under the certificate procedure, with the result that in 5,039 cases, against 4,814 cases in the previous year, attached property was sold; in 5,557 cases warrants for arrest were issued, and in 22 cases defaulters were actually sent to jail. The number of defaulters sent to prison in the previous year was 37.

The revaluation of the rental, for the purposes of the road cess, is practically complete for the whole province. The gross rental of Bengal was returned for road cess purposes at Rx. 16,315,000 for the year 1897–98, as compared with Rx. 13,117,000 in 1873, showing an increase of 21·6 per cent. in the rental during the past 24 years. Only two districts showed any, and that a small, decrease in rental at the recent revaluations. The registration of landowners had previously been completed for the whole of Bengal; the total number of interests registered under the initial registration is 1,986,767, and the percentage of transfers by succession or otherwise that were registered during

the year was 6·7 on the total number of interests recorded at the initial registration. The corresponding percentages in each of the two previous years was 6·9 and 7·3. LAND REVENUE

The relations between landlords and tenants are reported to have been, on the whole, "satisfactory, with some exceptions in particular localities." The ordinary causes of trouble are quarrels about forest rights or the cutting of trees; the illegal enhancement of rents; no-rent combinations among tenants; disputes about appraisement of produce-rents; casual acts of oppression by agents or servants of the landlords. In many cases the causes of dispute are being, or have been, abated, by the landlord claiming to have a survey and record of rights under the Tenancy Law; in some places the tenants, especially those with large holdings, are too strong for the landlords. Many landlords remitted rents in part in view of the distress at the beginning of the year. Advances to agriculturists under the Loans Acts amounted to Rx. 155,000 during the year.

The Bengal Tenancy Act continues to work smoothly. The Act came into force at the end of 1885; and the returns of suits under the rent and tenancy laws of Bengal for recent years show:—

1891	- - - -	204,250 total suits instituted under the Rent and Tenancy Law.
1892	- - - -	208,505 „ „ „
1893	- - - -	219,157 „ „ „
1894	- - - -	238,399 „ „ „
1895	- - - -	237,308 „ „ „
1896	- - - -	246,387 „ „ „
1897	- - - -	257,009 „ „ „

The latest report on land revenue affairs in the North-West Provinces and Oudh pertains to the year ending 30th September 1897. During most of this period there was acute famine distress in the province. The total area of crops was 36,907,000 acres, as compared with 40,136,000 acres in 1895–96; the decrease of 3,230,000 acres, or 8 per cent., was due to the unfavourable character of the season, and occurred almost entirely in the crops of rice and gram. The rainfall was 40 per cent. below the average, and the rains ceased unusually early. The autumn crops failed generally; the crops of rice, jowar, bajra, and pulses being especially bad. The spring crops also failed on the unirrigated lands. The failure was so general as to cause extensive and serious distress, and to necessitate relief measures over a great part of the provinces. A good autumn harvest in 1897 has relieved the pressure. Prices of food were phenominally high, being on the whole twice as high as in normal seasons. The irrigated area was 9,650,000 acres, or 13 per cent. more than in 1895–96; the increase was due to the dryness of the season; of the total, 6,316,000 acres were irrigated from wells as compared with 4,426,000 acres in 1895–96. The year was marked by general unhealthiness. There was a virulent epidemic of rinderpest in the Benares division during the year, but few other outbreaks of cattle disease. Many cattle, probably the less valuable, died owing to want of fodder and water. North-West Provinces and Oudh.

The gross collections of land revenue in the North-West Provinces and Oudh under all heads were Rx. 6,538,000, as compared with Rx. 7,443,000 in the previous year; the decrease was chiefly owing to suspensions of land revenue proper, only 76 per cent. being collected during the year. About a crore of rupees was suspended out of the autumn demand, and a further 45 lakhs from the spring demand, while fresh enhancements of revenue in Oudh, amounting to about 3 lakhs, were postponed. Subsequently, about 60 lakhs, or 42 per cent. of these amounts, were entirely remitted. There was also an increased demand for canal water, due to the scantiness of the rainfall in the previous years. The uncollected balance at the end of the year amounted to Rx. 1,474,000, or 24 per cent. of the demand. The total number of coercive processes of all kinds was 47,726, against a total of 63,222 during the preceding year; attachments of property for arrears were 10,387 as compared with 12,032, and the number of sales of defaulters' property was 401, against 713 in the previous year. These decreases were due to suspensions of revenue and general leniency

LAND REVENUE.

The number of suits and applications under the rent law in the North-West Provinces was 235,459, or 1 per cent. below the total of 1895–96. Of the suits more than 90 per cent. were for arrears of rent. The number of notices of ejectment brought against privileged tenants was 19,232, or 23 per cent. less than in the previous year, and in 6,084 cases ejectment was effected; the area affected by the ejectments was 33,100 acres, or 46 per cent. less than in the previous year. Against tenants-at-will 52,317 notices of ejectment, or 17 per cent. more than in 1895–96, were issued, affecting 300,000 acres. The number of notices of relinquishment filed by tenants in the North-West Provinces fell from 42,801 to 27,144; and the number of applications by distraining landlords for sale of tenants' property rose from 40,559 to 46,282.

In Oudh the number of suits instituted under the rent law fell from 35,351 to 29,366. Of the suits, nearly 80 per cent. were for arrears of rent, and 35 per cent. of all suits were contested. Notices or applications for ejectment of tenants of all kinds fell from 13,462 cases, affecting 118,852 acres to 7,694 cases, affecting 89,689 acres. Tenants were actually ejected from 4,288 holdings, with an aggregate area of 51,011 acres. The applications for ejectment of statutory tenants in Oudh fell from 4,169 to 1,296, and ejectment took place from 857 holdings, covering 4,301 acres. In Kumaon 948 suits were instituted during the year, 78 per cent. of them being for arrears of revenue and rent.

The number of loans granted under the Land Improvement Loans Act of 1883 increased from 1,886 to 151,543, of which 18,978, for Rx. 22,215, were to landlords, and 132,565, for Rx. 83,162 were to tenants; under the Agriculturists Loans Act, Rx. 224,743 were advanced during the year, against Rx. 63,767 in the previous year; these advances were very much larger than in any former year. The outstanding amounts of principal and interest under both Acts, at the end of the year, were Rx. 471,096; and instalments for principal and interest, falling due during the year, amounted to Rx. 199,066, of which little over 40 per cent. was collected, owing to the prevailing distress.

Punjab.

The latest Punjab land revenue report is for the year ending on the 30th September 1897, and for that reason the following paragraphs deal with that year. A short account of the harvest of 1897–98 will be found below, in the chapter on Agriculture. The autumn rains were light and ceased early, but the winter rains were prolonged and satisfactory. The crops of the province were considerably below the average. The total area of crops harvested was 16¼ million acres, as against 17 million acres in the preceding year, and 21¾ millions in 1894–95. The area of "Current fallows" in which are included the lands on which crops failed to mature, rose to over 10½ million acres, as compared with 5¼ millions and 9¾ millions in the two previous years. The irrigated area rose from 7¾ to 8¾ million acres, and covered 47 per cent. of the cropped area, showing an increase of 11 per cent. on last year, and 21 per cent. as compared with normal years. The exports of wheat fell to 114,000 tons against 527,000 tons in 1894–95 and 292,000 tons on the average of the previous 10 years. There was, in 1897, a general rise in the ruling prices of almost all agricultural produce, which was especially marked in the case of food grains, all of which rose more than 35 per cent., while bajra, maize, and gram rose about 70 per cent., and jowar over 84 per cent., as compared with last year's high prices. Food crops of all sorts covered 92 per cent. of the total crop area, but the breadth of food crops was about 5 million acres, or one-fourth, less than the decennial average.

The regular land revenue collections on account of the year were 6 per cent. below the collections of the previous year, or Rx. 2,009,000 in all. The uncollected balances at the end of the year were Rx. 301,000, as against Rx. 95,000 in the previous year; the increased balances were due to the adverse season. The number of writs and warrants issued against defaulters fell from 41,724 to 40,837, of which latter figure nearly one-third were warrants.

The number of suits for enhancement of rent had fallen from 3,788 in 1892–93 to 686 in the year 1894–95, 870 in the year 1895–96, and 779 in the year under review; landlords were successful in 78 per cent. of these suits in this year. There were 38 suits brought by occupancy tenants for reduction of rent, and 50 per cent. of them were successful. The number of decrees passed for ejectment of occupancy tenants was two only, and 7,736 decrees of eject-

ment were issued against tenants-at-will, compared with 7,446 in the previous year. About 50 per cent. of the total cultivated area of the province was tilled by owners, and about 1 per cent. by tenants at a nominal or no rent, of the lands held by other tenants 20 per cent. was in the hands of occupancy tenants, the remainder being cultivated by tenants-at-will. The latter tenancies are increasing in number from year to year. Cash rents range from 5 annas in a rainless tract of the Derajat up to 40 rupees per acre on the very best irrigated land, and they are estimated to average $2\frac{2}{3}$ rupees per acre for the whole province. On $66\frac{1}{2}$ per cent. of the area held by tenants-at-will, the rent is still paid, wholly or partly, in kind; and the average rent payable in kind is for the whole province 40 per cent. of the produce. The excess of area mortgaged, over area redeemed in the year, was 219,000 acres, which is more than last year, and above the average of preceding years; the excess being ascribed to the prevailing distress. The area under mortgage at the end of the year was 4,937,000 acres, or 8·7 per cent. of the total of proprietary lands; the area mortgaged and sold was considerably higher than in the preceding year, while the area redeemed from mortgage also increased. The average price realised for land sold during the year is returned at 71 rupees per acre, for a total area of 371,000 acres sold; in 1895–96 the figures were 59 rupees per acre, and 352,000 acres. The advances to agriculturists for purchase of seed or of stock amounted to Rx. 161,540, the increase above the amount usually applied for being due to the famine. LAND REVENUE.

The rainfall of 1897 in Lower Burma was sufficient and evenly distributed; the rice-crop, which covers more than nine-tenths of all the cultivated land in Lower Burma, was above the average. In Upper Burma, for the most part, the rainfall was below the average, but it was seasonable, and resulted in a good harvest. The prices of the paddy (rice in husk) at the sea-ports were not so high in 1897-98 as in the previous year, when they were raised abnormally by the demand caused by famine in India; but they were still comparatively high, ranging from Rs. 83 to Rs. 103 per 100 baskets. In Lower Burma the cultivated and assessed area increased by 267,000 acres, or rather more than 4 per cent. during the year. The total collections under land revenue and capitation tax for the combined provinces were Rx. 2,651,700, as compared with Rx. 2,369,900 in the previous year, showing an increase of 12 per cent. In Lower Burma the net land revenue demand increased by Rx. 93,000, or 8 per cent., and was collected during the year, all but Rx. 21,000; the capitation tax also showed an increase of $1\frac{1}{2}$ lakhs, and the revenue from fisheries was slightly higher. In Upper Burma the capitation tax yielded Rx. 90,000 more than in the previons year, being an increase of nearly 22 per cent.; the revenue from State lands was 25 per cent. higher, and there was an increase of Rx. 14,000 or 12 per cent. under miscellaneous heads. The increased receipts in Upper Burma were partly due to the levy of higher rates in certain districts; during the two preceding years, owing to drought and bad harvests, the collections had fallen 20 per cent. In Lower Burma the increase was caused by general prosperity and good harvests. The number of coercive processes issued decreased by 21 per cent. in Lower and 11 per cent. in Upper Burma. The area occupied by tenants continues to increase in Lower Burma, the average rent during 1897–98 being Rs. 8 per acre. The effect of the famine and drought in India and in Upper Burma on the rice trade of Lower Burma may be gathered from the following figures. The total exports of cleaned rice from Lower Burma in the year 1897–98 amounted to 1,492,000 tons, as compared with 1,299,000 tons in the preceding year. Of the total more than three-quarters went from Rangoon. Burma.

The latest land revenue report from the Central Provinces is for the year ending in September 1897. The monsoon of 1896 ceased early in September, and hardly any showers fell during October, so that sowing of the spring crops was greatly hindered, or even stopped altogether. The small millet crop and most of the rice crop was practically destroyed, and the autumn crops were generally very bad. Showers which fell at the close of November rendered the germination of spring crops better than might have been expected over the restricted area sown. Taking the outturn of all crops together it was only Central Provinces.

LAND REVENUE.

47 per cent. of the normal outturn over the whole province; while the average for the last three years was only 65 per cent. of a full normal outturn. The failure was worst in the northern and eastern districts, where the crops had been very short in the two previous years. Prices of field produce almost doubled after the failure of the rains in 1896, and throughout 1896–97 the average price of food staples ranged from 50 to 100 per cent. above the normal rates. The cultivated area fell considerably, and was more than a million acres below that of 1893–94, the decrease occurring, as stated above, in the area sown for spring crops. During the year 1897–98 there has been a considerable recovery.

The ordinary land revenue demand showed an increase of Rx. 37,000, or 5 per cent., due to resettlements of revenue. Of the total, current and arrear, demand of Rx. 947,000, Rx. 563,000 were collected, leaving an uncollected balance of Rx. 384,000, or 41 per cent. The short collections were due to the famine, and nearly half occurred in the Jubbulpore division. The payment of Rx. 265,000 was suspended during the year, and by subsequent remissions the outstanding balance was reduced to Rx. 177,000. The total remitted was therefore about Rx. 207,000. There was a decrease in the number of coercive processes for realisation of arrears, and the total number was 8,274 against 12,216 in the previous year. Only 271 defaulters were arrested, and five were sent to jail during the year; no land was sold for arrears, and the sales of moveable property for default were 115, as compared with 276 in the previous year. There was a decrease in the area of land transferred by sale or mortgage; the total area of such transfers was 422,000 acres, as compared with 528,000 acres in the previous year. Litigation under the Tenancy and Rent Law decreased. Suits for arrears of rent fell from 16,049 in the preceding year to 14,145, of which 17 per cent. went in favour of the defendant. The number of suits for ejectment of tenants fell from 831 to 597. It is stated that landlords as a class generally treated their tenants with consideration, but reports from some districts show that exceptions did occur during the year, particularly in the case of those landlords who do not belong to the agricultural classes. Out of a total occupied area of 20 millions of acres, 5 millions, or about 25 per cent., are held by tenants-at-will, the remaining 75 per cent. being cultivated by proprietors and privileged tenants; while the average rent paid by ryots of all classes, holding 16 million acres, was $12\frac{1}{3}$ annas per acre.

Assam.

In the Assam Valley, the rainfall of 1897–98 was sufficient in most districts, and the rice crop, which forms two-thirds of the total crops, was generally satisfactory. Considerable damage was, however, done by continuous floods, which were ascribed to the silting up of river channels by the great earthquake which occurred in June 1897. The outturn of sugar cane was poor, and the weather was not favourable for the tea crop. The price of food was generally high, owing chiefly to the dearth in Bengal and other parts of India. In a previous Statement was given an account of the resettlement of revenue rates in the Assam Valley, with a resulting increase of 25 per cent. in the Government demand. The rates previously in force had remained unaltered from 1867 to 1894. The demand for the year 1897–98 came to Rx. 556,000, or nearly 1 per cent. above that of the preceding year, of which $93\frac{1}{2}$ per cent. was realised during the year. The uncollected arrears at the end of the year were Rx. 42,600, which is large, compared with other years. Of this balance, Rx. 14,200 is due from Nowgong, where malignant malaria has of late years caused great damage. The miscellaneous land revenue receipts showed an increase of $3\frac{1}{2}$ per cent. over the total of last year, and amounted to Rx. 47,100.

Madras.

In the Madras Presidency the season was not altogether favourable to agriculture during the year 1897–98 on the east coast, in the Deccan, and in two other districts. The average rainfall of the year was above the normal rate, the rains of the north-east (or early) monsoon having been very light, and the south-west monsoon setting in late; but the rainfall was badly distributed. The total area under crop was $27\frac{1}{4}$ millions of acres, as compared with $26\frac{1}{2}$ millions in the preceding year. The outturn of the crops is reported to have been on the whole not much below the normal. Prices of food ranged

considerably dearer than in the previous year; the three millets, which are the principal food of the poor, rose more than 40 per cent., while rice rose 27 per cent. The scarcity of the previous year and the large demand from other parts of India caused an unwillingness among the ryots to place their stocks upon the market. LAND REVENUE.

The collections of ordinary land revenue in Madras were Rx. 5,384,000, as compared with Rx. 5,017,000 in the preceding year 1896-97. The increase was chiefly due to realisations of arrears of 1896-97. The uncollected revenue at the end of the revenue year ending in June 1897 was Rx. 333,500, or 5½ per cent. of the whole demand, as compared with 1½ per cent. in the preceding year. The number of notices of demand issued to defaulters was larger than usual, though less than in 1895-96; but there was a decrease in the number of subsequent processes which imply real coercion. The total extent of land sold for arrears of revenue fell from 27,728 to 21,467 acres; and 7,076 acres were bought in at these sales by the Government.

The season of 1897-98 was on the whole good in the Bombay Presidency; the rainfall was below the average almost everywhere, excepting in Sind, but it was well distributed. In Sind the inundations rose very high and lasted long, and harvests were bountiful, though spoilt in some places by floods. Prices declined generally from the high figures of the previous year, though the normal level was not reached; towards the end of the year, however, prices were so low in Sind that cultivators are reported to have been unable to meet revenue demands, in spite of the large yield. Jowar was about 50 per cent. cheaper, and other grains, excepting rice, were proportionately lower. The land revenue demand for the year was Rx. 3,926,000, and Rx. 151,000 on account of arrears; and the total collections were Rx. 3,962,000, or nearly 8 per cent. more than in the previous year. The number of distraints for arrears was returned at 1,346, compared with 1,441 in the previous year. Bombay.

The rainfall of 1897-98 in Berar was above that of the preceding year, but was still 19 per cent. below the average; the autumn crops did not suffer, and were excellent, but the absolute cessation of rain after September was very unfavourable to the spring crops. Prices of food grains fell generally, and that of millet in particular was little more than half the very high figure of 1896-97. The year was an unhealthy one. The total area under crop was 6,636,000 acres, or 384,000 acres more than in 1896-97. Berar.

The collections on account of land revenue and local rates of the year were Rx. 751,700, against Rx. 725,400 in the previous year. The number of coercive processes issued against defaulters showed a decrease, there having issued 12,175 writs of demand, against 14,380 in the previous year. In 46 cases personal property was sold for arrears; 50 fields were also sold; no defaulters were sent to prison. In spite of the fact that at the commencement of the agricultural year 1897-98 the famine distress was at its height, the area brought under cultivation was slightly in excess of that in the two previous years. The number of boundary marks found to be out of repair on cultivated land was 128,000, of which all except 1,100 were repaired by the close of the year.

WARDS' ESTATES.

In most of the larger provinces a Court of Wards has been established, which undertakes the management of estates belonging to minors, idiots, or other persons declared incapable of managing their own affairs. The position and powers of the Court of Wards are prescribed by law; and recent enactments have enabled indebted proprietors to place their estates voluntarily under the Court of Wards. The duty of the Court is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way. During the year 1897-98 the number of estates managed by Courts of Wards or under in different parts of British India was WARDS' ESTATES.

WARDS' ESTATES.

1,199, with a total annual income of Rx. 2,210,000. The period for which an estate remains under the Court of Wards is generally from 10 to 12 years.

Bengal.

In Bengal, 71 wards' estates and 70 attached estates, or five less than in the preceding year, were under the management of the Court of Wards, with a total rental of Rx. 1,195,922; the collections on account of the current rental came to 66 per cent. on the demand, as compared with 62 per cent. in the preceding year. The decrease of the two years, as compared with the percentage in 1895-96, which was 97, was due to the drought and calamities of the past season. The cost of management was 6·9 per cent. on the current rental demand, as compared with 8·1 in the preceding year. There was spent on schools, dispensaries, and improvement and maintenance of estates, a sum of Rx. 94,674. Debts to the amount of Rx. 106,324 were paid off during the year, and the outstanding debts due from all wards' estates were Rx. 1,195,000 at the close of the year. Surveys and record of rights were being prosecuted over 685 square miles, situated in parts of five different estates, and were completed during the year on four of those estates; the expenditure on this work was Rx. 2,700. The cash balances at credit of wards' estates were Rx. 314,000 on the 31st March 1898, and the investments in Government securities were valued at Rx. 561,000. Thirteen estates were taken over, and 13 released by the Court of Wards during the year.

For 11 out of the 13 estates released during the year the net results of the Court's management were as follows: During the period of the Court's administration the gross yearly rental increased from Rx. 47,596 to Rx. 56,843,; the outstanding debts have been reduced from Rx. 541,600 to Rx. 3,900; Rx. 22,100 have been spent on improvements; investments have been increased from Rx. 3,900 to Rx. 36,300; schools and hospitals serving the estates have been helped, and wards have been educated.

North-Western Provinces and Oudh.

The number of estates under the Court of Wards in the North-Western Provinces and Oudh at the end of September 1897 was 179, with a yearly rental of Rx.726,000. Twenty-three fresh estates were made over to the Court of Wards; 12 estates were restored to their proprietors during the year; some of these were very small properties; on four all debts had been paid off, and on some a substantial balance had accrued to the proprietor. The land revenue and local rates due upon all the wards' estates came to 41 per cent. upon the gross rental or Rx. 301,000 in all. Rx. 4,500 were spent on the education and training of the wards, and, as far as possible, of their brothers and sisters. Against the estates under the Court there had been, when superintendence was first assumed, debts amounting to Rx. 1,749,000, which were reduced by September 1897 to Rx. 1,360,000. In some few cases, where the debts were very heavy, part of the estate had to be sold in order to secure solvency. The cost of management averaged 7 per cent. on the total receipts; and Rx. 74,600 were spent on works of improvement and advances to tenants for similar works, as compared with Rx. 35,500 in 1895–96. Of the current rental of the year 78 per cent. was collected, leaving the total arrears at Rx. 269,000. Rx. 326,000 were invested in public securities, or on mortgage, or in loans to other wards, or in the purchase of lands and houses. The number of notices for ejectment of ryots rose from 283 to 490, of which less than 3 per cent. were successfully contested by the tenants. There was only one unimportant suit for enhancement, the circumstances of the year not having been favourable for such applications.

Punjab

At the end of September 1896 there were 72 estates under the management of the Punjab Court of Wards. Three fresh estates came under the jurisdiction of the Court, and 31 were put under the management of the Deputy Commissioner under section 18 of Act VIII. of 1890. Six estates and one share of a seventh were surrendered to their owners during the year. Thus the total number is 100; but the 31 mentioned above, which are all small estates, are not, properly speaking, under the Court of Wards. Of these estates, 48 belonged to minors or idiots, three to persons declared by the Government to be incapable of managing their estates, 11 to persons who applied to have themselves declared unfit to manage their property, and 38 were managed under other laws. Only five of these estates have an income of over Rx. 5,000 a year. In 1896–97

the total income of the wards was Rx. 90,300; and the expenditure, including repayments of debt, was Rx. 70,900. The cost of management was 11 per cent., against $10\frac{3}{4}$ per cent. in the previous year, on the total income of the estates. Rx. 21,200 were spent out of income on paying off debts; the debts of all the wards, which had been Rx. 67,000, were reduced to Rx. 64,000 by the end of the year. Investments made in behalf of wards during 1896–97 amounted to Rx. 34,800. The expenditure on works of improvement was Rx. 9,700; on the personal expenses and education of wards, Rx. 13,000; and on the payment of land revenue and local rates, Rx. 17,400, or 19 per cent. on the total income. WARDS' ESTATES.

In the Central Provinces in the year ending September 1897 the Court of Wards relinquished the management of four estates, with a rental of Rx. 1,500, and received charge of 20 estates. At the end of the year 173 estates, with a gross income of Rx. 160,000, were under management. Out of the 20 estates newly undertaken, management was in 16 cases assumed at the request of indebted proprietors who have been declared, at their own wish, incapable of managing their own property; four were taken over because the proprietors were minors. Of the relinquished estates one was handed over to the chief creditor, with the consent of the ward, and three were restored on the proprietors coming of age. The Court of Wards collected only 42 per cent. of the rental of the year, very large remissions and suspensions having been made on account of the famine; in the previous year the collections had been 58 per cent. of the demand. Advances of cash and grain were made freely by the Court to tenants out of estate funds during the year, with good results. Of the debts due by embarrassed estates Rx. 26,000 were paid off during the year, but additional debt had to be incurred, and Rx. 231,000 were still due at the end of the year. About Rx. 34,000 were spent on the permanent improvement of, and in advances to ryots in, solvent estates; and Rx. 1,200 were invested in Government securities or in land. Central Provinces.

The Court of Wards in Madras during the year 1897–98 handed five estates back to their proprietors, and took charge of two estates; there were thus 42 estates under the Court at the end of the year, as compared with 45 at the beginning. The season was favourable on most of the estates; 692,000 acres, or 91 per cent. of the total area of all holdings on these estates was cultivated, as compared with 90 per cent. in the previous year. The rent collections on account of the current year amounted to Rx. 215,000, or 82 per cent. on the current demand; the overdue balance was 12 per cent. against 19 per cent. in the previous year; the demand on account of arrears amounted to Rx. 234,000, of which Rx. 52,000 was collected during the year. The cost of management and of State assistance came to $11\frac{1}{2}$ per cent. on the total receipts of the year, which amounted to Rx. 306,000, besides the opening balance of Rx. 90,000. The balance at the credit of all estates, invested and uninvested, at the end of the year was Rx. 444,000. The debts due by the estates at the end of the year were Rx. 116,000, debts amounting to Rx. 11,000 having been paid off during the year. The expenditure on works of irrigation and other improvements was Rx. 21,300. The progress in education of the 49 wards, 46 male and 3 female, was said to have been satisfactory, save in the case of seven lads. Madras.

In Bombay the estates under the Court of Wards or under Government management were of several kinds, namely:— Bombay.

	No.
(1.) Estates under the Court of Wards, outside Guzerat	82
(2.) Encumbered estates in Guzerat, &c., managed under Acts of 1862, 1881, 1888 and 1890, and under the Civil Procedure Code; and talukdari villages	479
(3.) Encumbered estates in Sind	2

Outside Guzerat the estates were of small area.

WARDS' ESTATES.

The estates of the second category are all in Guzerat, and are under the care of a special revenue officer. The total collections of these Guzerat estates, and of certain other estates under the same management, were Rx. 77,000. Payments to creditors were Rx. 13,000; Rx. 19,400 were paid as Government land revenue; maintenance of the owners and their families cost Rx. 14,200; and Rx. 11,400 was the amount of uncollected balance at the close of the year. Each minor talukdar was receiving education at school. Under the Guzarat Talukdars' Act of 1888, loans to the amount of Rx. 2,297 were sanctioned, and applications for a total of Rx. 16,100 were under consideration at the end of the year. Of the two encumbered estates in Sind, both were in the Karachi district, and of small value, and one was released.

Burma, &c.

There were no wards' estates under the management of public officers in—

Burma,	Berar,
Assam,	Ajmere,

during the year.

VIII.

FORESTS.

THE subjoined tables give the forest receipts, expenditure, and net revenue for each province during the year 1897–98 :— FORESTS.

——	Bengal.	North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
REVENUE.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Receipts - - - -	118,928	138,667	106,847	721,526	78,005	38,482	61,744	213,649	261,666	1,739,514
EXPENDITURE.										
General direction - -	—	—	—	—	—	—	8,147	—	—	8,147
Conservancy and Works -	35,250½	50,649	44,085	130,828	36,158	8,643	29,526	75,752	108,369	519,260
Establishments, &c. - -	30,094	41,136	33,109	88,833	55,986	20,240	17,880	81,533	98,950	467,761
Charges in England - -	—	—	—	—	—	—	6,521	—	—	6,521
TOTAL Expenditure -	65,344	91,785	77,194	219,661	92,144	28,883	62,074	157,285	207,319	1,001,689
Net Revenue or Forest Surplus, 1897–98 - -	53,584	46,882	29,653	501,865	— *14,139*	9,599	— *330*	56,364	54,347	737,825
Net Surplus of the previous Year, 1896–97 - -	68,081	53,848	38,442	425,013	— *17,767*	15,443	— *26,404*	76,903	106,355	739,914

Some beginning was made in the forest administration and conservancy of Southern India in 1844; 10 or 12 years later similar work was begun in Western and Northern India, and was taken up systematically all over India when the Mutiny troubles were over. Within the last 20 years forest laws have been enacted for, and forest administration has been placed upon a permanent basis in, every province of India. The superior officers of the forest service have been, for the most part, selected by competition, and have been trained in forestry, either in Germany, or in France, or at Cooper's Hill College. During the year 1893–94 it was decided that 20 per cent. of the 210 superior posts in the Forest Department should eventually be filled by selected officers, chiefly Natives of India, from the subordinate or provincial branch of the Department. Some of the subordinate officials are trained at a forest school near Dehra, in the sub-Himalayan country of the North-Western Provinces, and this system of professional training at local centres will be gradually extended. The first object of the forest administration is to select, acquire, and mark off as reserves an area of State forest in every province sufficient to supply the wants of the neighbourhood and the province in respect of timber, firewood, bamboos, canes, and other forest produce, and sufficient also for supplying the foreign demand for such articles as teak timber, sandal wood, and rubber. The reserves are, or will be, surveyed, conserved, and worked on sanctioned plans, designed so as to obtain the largest possible permanent yield in the most economical way. Private rights in the reserves are bought out or compromised. Among the most important measures of conservancy are the exclusion of the yearly fires which used to devastate forests, the maintenance of adequate seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of more than 80,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves are over 30,000 square miles of State forests, some part of which will be eventually brought within the reserve area, and all of which are managed and worked for the benefit of the people, of their cattle, and of the public revenue. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and as yet few private, and no communal, forests have been successfully brought under conservancy. General.

FORESTS.

In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special license. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use, free of charge; inside the reserves, only persons specially licensed are allowed to extract timber or other produce on payment of fees. Forest revenue is raised by royalties on, or by the sale of, timber or other produce, and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and other minor forest produce. In the year 1897–98 the gross forest revenue of British India was Rx. 1,740,000; the expenditure was Rx. 1,002,000; and the net forest revenue was Rx. 738,000, as compared with Rx. 740,000 in the previous year. Some of the better-managed Native States, such as Mysore, Travancore, and Baroda have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue; Kashmir is now adopting the same policy. Mysore has more than trebled its forest revenue since the country was restored to the Native Rule, in the year 1881.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure, being compiled from administrative returns for the year ending in June, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts for the year ending in March 1898.

Bengal.

In Bengal, at the end of the year, the areas of reserved and protected forests were 5,880 and 3,460 square miles, against 5,876 and 3,378 square miles respectively in the previous year. No forest surveys were made during the year; regular working plans were completed for 212 square miles of reserves; while working plans have up to the end of 1897–98 been framed for 4,448 square miles out of the forest area. The protection of forests from fire was, by reason of an unfavourable season, not very successful; attempt was made to exclude fire from 1,953 square miles, and the effort succeeded over 73 per cent. of that area, as compared with 97 per cent. and 70 per cent. in the two previous years. This low percentage is due to the large area destroyed by fire in the Singhbhum division. The area of plantations reached 6,103 acres by the end of the year, situated largely in the Darjeeling district. There was a decrease in the yield of timber, compared with the preceding year, from 5,397,000 to 4,905,000 cubic feet; a decrease in the yield of fuel from $30\frac{1}{4}$ to $30\frac{1}{8}$ million cubic feet; and an increase in the yield of bamboos from $18\frac{1}{4}$ millions to $18\frac{4}{5}$ millions. The gross and the net forest revenues were Rx. 118,928 and Rx. 53,585, a decrease as compared with the previous year, when the net surplus was Rx. 68,081, owing to the large number of timber sleepers sold. The Sunderbuns forests yielded Rx. 45,000 out of the gross revenues, those of Singhbhum Rx. 38,400. The cyclone which occurred in October 1897 in the Chittagong division practically destroyed the whole of Sitapahar forest, with an area of 11 square miles.

North-West Provinces and Oudh.

The forests of the North-West Provinces and Oudh are divided into three "circles," and the forest reserves cover an area of 3,851 square miles, or 29 square miles more than the area of the previous year; there are also 9,271 square miles of protected forests. Surveys have now been completed for all the reserves except 39 square miles; and working plans are in force or in preparation for all reserves except 366 square miles. But in many places the old working plans are coming under revision, so the business connected with framing these plans will continue to require attention. The area over which attempts were made to exclude fires was 3,021 square miles; and fires occurred over 84 square miles, or 3 per cent. of the protected area. The number of forest offences that were compounded was 411, and 255 persons were prosecuted, of whom 192 were convicted. The total yield of the forests during the year was returned at 3,827,000 cubic feet of timber and 7,490,000 cubic feet of firewood; the out-turn of timber was 7 per cent. below, and of firewood was 14 per cent. above the yield of the preceding year. The minor produce yield was returned at Rx. 28,000 worth of grass, bamboos, &c. The total forest revenue of the year was Rx. 145,000. The forest surplus of the year was Rx. 51,000, as in 1896–97.

At the end of 1897–98 the reserved forest area of the Panjab was 2,408 square miles, besides 5,282 square miles of protected and unclassed forests, a large area in Shahpur having been added to the reserves for administrative purposes. The survey of the reserved Himalayan and other forests was continued during the year, but little progress was made. Regular working plans for the Upper Ravee, and Simla Municipal forests were sanctioned; the working plan for the Kulu forest was practically settled; and working plans for seven more forests were in different stages of preparation. Forest fires were much more numerous than in the preceding year, occurring chiefly in hill tracts, where the spring rains were late; but in the plains they were few, and the total is not high; 366 fires were reported, against 146 in the year 1896–97; the area actually burnt was 48,000 acres, or 1 per cent. of the total forest area, as compared with 14,000 acres in the previous year. It is alleged that about half the fires were intentionally caused in order to obtain new grass. There was a decrease of 250 in the number of reported offences against the forest laws; the cases taken into court were 1,033, in 72 per cent. of which convictions were obtained. The total yield of the forests for the year was returned at 2,928,000 cubic feet of timber and 29,716,000 cubic feet of firewood, or 26 per cent. more timber, and nearly 2 per cent. more firewood than in 1896–97; over 27 millions of cubic feet were removed by free-grantees and right-holders without charge, $3\frac{3}{4}$ millions were worked out by Government agency, and $1\frac{1}{2}$ millions by purchasers. FORESTS. Panjab.

The total forest revenue of the year was Rx. 116,000, against an outlay of Rx. 78,000, yielding a surplus of Rx. 38,000, as compared with Rx. 32,000 in 1896–97.

An area of 123 square miles was added to the reserved forests of Lower Burma, while 526 square miles were added to the reserves in Upper Burma. The total reserve area at the end of the year was 14,707 square miles. Over 849 square miles of the reserves the privilege of cultivating hill gardens has been secured for the forest tribes. In Upper Burma there are still large areas of protected forests, out of which further reserves are being selected. Burma.

Surveys were carried out over 780 square miles of forest in Lower, and 366 square miles in Upper Burma; while regular working plans were sanctioned for two forests in Lower Burma. In Lower Burma fire protection was attempted over 1,064 square miles of deciduous forest, and fire was excluded from 95 per cent. of that area, as compared with 93 per cent. in the preceding year. In the Upper Burma teak forests, where the rainfall is often less than in Lower Burma, efforts for the exclusion of fires were more successful than in previous years; from 74 per cent. of the area attempted (1,000 square miles) fire was excluded, as compared with 40 per cent. in 1896–97. In Lower Burma the plantations, chiefly teak, now cover about 81 square miles, 3,787 acres having been added during the year. The plantations in Upper Burma cover, as yet, only a comparatively small area. The teak worked out of the forests was 350,000 tons, showing a large increase in Upper and a small increase in Lower Burma, while the output of other timbers also increased. The increase was due to great activity on the part of lessees, aided by a favourable floating season. The forest revenue and forest surplus since the acquisition of Upper Burma, have stood thus:—

		Gross Forest Revenue.	Forest Surplus of Revenue over Expenditure.
		Rx.	Rx.
TOTAL for Upper and Lower Burma	1887–88	251,576	136,191
	1890–91	432,196	298,353
	1894–95	559,589	373,139
	1895–96	559,038	373,138
	1896–97	637,895	424,400
	1897–98	721,526	508,216

FORESTS.

The arrivals of teak by the Salween river at Moulmein were 83,349 tons, or 1,129 less than in the previous year. The export of teak from Burma by sea was 273,391 tons, as compared with 204,857 and 191,152 tons in the two preceding years. The average value of the teak exports was Rx. 8¾ per ton as compared with Rx. 8⅓ in 1896–97 and Rx. 7½ in the two previous years.

Central Provinces.

The area of reserved forest in the Central Provinces was 19,498 square miles, of which 12,700 square miles were at the end of the year 1897–98 classed as A. or permanent reserves, and 6,506 square miles were classed as B. reserves. The B. reserves are available either for eventual transfer to the A. class, or for possible extensions of cultivation in future years. An area of 208 square miles was disforested and made available for cultivation during the year. The demarcation of reserves is nearly finished; 343 miles of boundaries were demarcated during the year, bringing the total of completed boundaries to 22,382 miles, and leaving 955 miles still to be demarcated. Surveys preparatory to the formation of working plans have been completed in seven districts, and were nearly complete in seven more districts, but a great deal of forest survey has still to be done in the districts of Chanda and Mandla. Complete working plans had been sanctioned for 5,586 square miles, and were in hand for 9,536 square miles of forest. The total number of reported forest offences fell slightly to 4,756. Out of the reported offences against forest laws 4,126 were compounded under sanction of competent officers, and in 275 cases prosecutions were undertaken. Fire was excluded from 96 per cent. of the 5,941 square miles over which special fire protection was attempted, and from 94 per cent. of that partially protected; the cost averaged 4⅘ rupees per square mile over the whole operations; the special protection costs on the average 9½ rupees per square mile. No regular plantation work is attempted in the Central Provinces, but efforts are being made to induce villagers to plant groves, especially of sandal trees. Natural reproduction was good in the southern circle, but in the north teak has suffered considerably from the attacks of a caterpillar. The number of cattle grazed in the forests was 1,921,000, of which 187,000 were allowed into the forests without fee. Receipts from grazing dues show a decrease, as compared with the previous year, especially in the northern circle. The forest revenue of the year was Rx. 84,900, against an expenditure of Rx. 87,000, leaving a deficit of Rx. 2,100, a result which is due to the famine.

Assam.

The reserved forests in Assam were reduced mainly through correction of previous computations by 91 square miles, bringing the total area to 3,590 square miles; besides about 15,700 square miles of unclassed State forests. No forest survey was accomplished during the year; preliminary and permanent working plans were generally observed, save that, as in previous years, fellings of timber did not approach the prescribed total in the Goalpara Sâl forests; operations were in some cases hindered by the earthquake, which on the other hand, caused a good demand for timber. Complete fire protection was attempted over 1,008 square miles, and fires were actually excluded from 99⅘ per cent. of the protected area; partial protection was also attempted over 196 square miles, 35 per cent. of which area suffered from fire; the expenditure on fire protection per square mile over the whole area attempted was Rs. 8 15/16, or rather more than in the previous year. Most of the reserves consist of evergreen forest wherein fire protection is not needed. The boundaries of reserves are mostly streams, rivers, and roads; out of 1,127 miles of artificial boundary line, 1,124 were cleared and properly maintained during the year at a cost of 2½ rupees per mile. The plantations of rubber, teak, sissoo and other trees, cover 2,362 acres, of which 45 acres were added during the year. Natural reproduction and growth of forest trees was on the whole unsatisfactory. The yield of the Assam forests shows a satisfactory increase, the total out-turn of timber and firewood being 16,717,000 cubic feet, as compared with 15,307,000 in the preceding year; about one-third of the yield was under the head of "free grants." The manufacture of tea boxes, which is carried on under a royalty system in the Assam Valley, was stationary during the year, and it seems that imported boxes are preferred to the locally made article. The export of rubber from Assam fell to 2,846 maunds, as compared with 4,047 maunds in 1896–97. The quantity of bamboos taken from the forests during

the year decreased from 24 to 21½ millions. The forest revenue was Rx. 37,100 during the forest year ending on 30th June 1898, and the forest surplus was Rx. 8,500, or Rx. 7,400 less than in 1896–97. FORESTS.

The forest area of Berar is 4,175 square miles, or 23½ per cent. of the whole area of the province, of which 1,552 are reserved for timber and fuel, 92 for fodder and thatching grass, and 2,531 for pasture. The total forest area decreased by about four square miles during the year. Surveys and working plans for 725 square miles are complete. Short term working plans for 2,326 square miles have been completed, and similar plans for 819 square miles are in hand. Fires were excluded from 1,428 square miles, or over 99 per cent. of the area in which fire protection was attempted; the cost of protection rose from 9 to 9½ rupees per square mile. The number of convictions for causing fires was three. The forest laws were generally administered with leniency; and during the early part of the year, until the crops of 1897 were assured, forests were open to free grazing in most parts. Natural reproduction was very satisfactory in the areas of forest from which fire and injurious grazing are excluded. The yield of timber decreased from 503,000 to 354,000 cubic feet; while the sales of fuel were 19 per cent. higher, and there was a small decrease in the output of bamboos. The gross receipts were Rx. 40,900 and the net revenue was Rx. 17,400, compared with Rx. 49,700, and Rx. 24,200, respectively, in the previous year. Berar.

An area of 637 square miles was added to the reserved forests of Madras during the year 1897–98, bringing the total area of reserves up to 13,775 square miles, besides 5,478 square miles of "reserved lands." Permanent marks were placed along 1,964 miles of new boundaries of reserves, as compared with 1,376 in the preceding year; and 1,546 miles of preliminary demarcation work were also done. Surveys of the reserves were continued by the Survey of India in the Salem, Cuddapah, Coimbatore, South Arcot, and Kurnool forests. Further progress was made in the preparation of working plans: in Tinnevelly three such plans were completed, and in four other districts plans for areas amounting to 204 square miles were taken in hand; and in most of the other forests temporary working plans are being carried out. Fire protection was attempted over 5,363 square miles, of which 93½ per cent. were successfully protected, not so good a result as in the previous year. The cost of fire protection averaged 6⅞ rupees per square mile, against 7⅓ and 7½ rupees per square mile for the two preceding years. The year was not unfavourable to natural reproduction, although, in consequence of the drought, some of the forests were thrown open to grazing, and suffered in consequence. The total area of plantations was returned at 19,802 acres, 3,945 acres being excluded during the year, in addition to the groves and other tree cultivation. The timber plantations consist of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast. The yield of the forests according to the returns was 2,620,000 cubic feet of timber, and 11,922,000 cubic feet of fuel, besides 29⅓ million bamboos and other minor produce; the timber and fuel out-turns, as well as the bamboo out-turn, were somewhat smaller than in 1896–97. The forest revenue was Rx. 215,000, against an expenditure of Rx. 159,000, leaving a surplus of Rx. 56,000, or Rx. 4,000 less than in the previous year. The decrease in the surplus was due entirely to the diminution of receipts, the expenditure being the same as last year. The number of breaches of forest laws reported during the year was 14,993; 69 per cent. of the cases were compounded or withdrawn; and in 85 per cent. of the 4,474 prosecutions conviction was obtained. Madras.

The area of reserved forests in Bombay was 12,616 square miles, or 410 more than in the preceding year. The protected State forests outside the reserves were returned at 1,931 square miles, or 99 square miles less. Forest surveys were carried out over 783 square miles of reserves; in each of forest circles permanent working plans were being prepared; while further progress was made with the demarcation of the forest into compartments for working in rotation. The number of prosecutions for forest offences was 2,461, or about 9 per cent. higher than that of the previous year; the proportion of convictions was 79 per cent., while 4,772 offences were compounded by competent officers under the law, as compared with 3,237 cases compounded Bombay.

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in 1896–97. The proportion of the area traversed by fire, as compared with that over which fire protection was attempted, was larger than in the previous year, owing to a dry season and high winds. Natural reproduction of timber was fairly good, save in the northern circle, where destructive fires killed the young seedlings. The regular plantations were extended during the year; and the afforestation of bare hillsides by cultural operations was continued in parts of the Deccan and the Konkan. The total receipts of the four forest circles of Bombay were Rx. 25,400, against an expenditure of Rx. 199,000, leaving a surplus of Rx. 56,000, or Rx. 46,000 less than in the previous year.

Coorg.

The area of reserved forests in Coorg was 238 square miles, as in 1896–97, besides 649 square miles of protected forests. One square mile was excluded from the protected forests during the year. Additions of 100 acres were made to the regular plantations of sandal and teak, which now cover 880 and 1,133 acres respectively. The greater part of the Coorg reserves is now under regular working plans, and working plans for two more reserves were under consideration; while a working plan for the sandal wood forests was under preparation during the year. Fire was excluded from 176 square miles out of 203 square miles over which protection was attempted; there were only 39 forest fires during the year. This unfavourable result was due to the dry and windy weather which prevailed early in 1898. The seeding of trees belonging to the more valuable species was satisfactory during the year; but until the forests can be more effectually protected from fire the growth of young teak and sandal trees must be unsatisfactory. There was some increase in the quantity of timber removed from the forests by purchasers, but the demand for timber was poor during the year. The quantity of sandal wood extracted from the forests fell to 83 tons, as compared with 137 tons in the previous year; the cost of extraction was slightly lower. Of the reserved area, 84 square miles, or 35 per cent., was open for grazing during the year. The forest receipts were Rx. 13,100, as compared with Rx. 9,300 in the previous year, and the charges were Rx. 8,700; the surplus rose from Rx. 2,100 to Rx. 4,400.

IX.

AGRICULTURE AND MINERAL RESOURCES.

AGRICULTURE. In every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture, and for the improvement of stock. The Agricultural Departments also keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract.

The second return of average yield per acre of staple crops in India, covering the five years 1892–93 to 1896–97, has now been issued. The figures are intended to give an idea of the "average out-turn on average soil in a year of average character," and not simply to state the average of the five years; the figures are therefore estimates. In addition to this, the system of crop experiments on which the returns are based has not been in operation long enough to give definite results; and no figures have been tabulated for Bengal or Madras, and few for Upper Burma. The figures must be regarded as subject to revision by the light of future experiments, but a short analysis of them is given :—

Province.	Yield in lbs. per Acre, exclusive of bye-products.						
	Rice (husked).	Wheat.	Barley.	Jowar.	Gram.	Sugar-cane.	Cotton.
Lower Burma, unirrigated land.	1,054	—	—	—	—	—	—
North-Western Provinces :							
Irrigated land - -	1,018	980	989	—	719	2,239	169
Unirrigated land - -	619	803	736	474	639	—	128
Punjab :							
Irrigated land - -	1,167	917	917	595	755	1,652	100
Unirrigated land - -	266	576	562	374	522	962	57
Central Provinces :							
Irrigated land - -	670	925	—	—	—	2,540	—
Unirrigated land - -	670	570	—	570	550	—	75
Bombay :							
Irrigated land - -	—	1,250	—	1,550	1,200	6,950	—
Unirrigated land - -	1,230	510	—	670	410	—	100

Bengal. The season of 1897–98 in Bengal was generally very favourable, both in the case of the autumn and of the spring crops. Abundant rain fell in June, July, and August, and again in October, and the average fall throughout the province for the year was practically normal. The area under autumn crops was 16¼ millions of acres, or 3 per cent. higher than in the preceding year; and over 14½ millions were sown with spring crops, against 13½ in 1896–97; this included 969,000 acres under sugar-cane, against 833,000 in 1896–97. The out-turn at both seasons was a full crop, the only serious damage suffered having been caused in North Behar by floods in September. Prices in several divisions of the province still ruled high, but were below the high figures of 1896–97.

Calcutta Botanical Gardens. The Botanical Gardens at Calcutta had not yet fully recovered from the drought of the past two years, and delicate plants, orchids especially, were unsatisfactory. The chief work in connection with economic plants was (1) the initiation of a full study of pulses cultivated in Bengal; (2) experiments in the cultivation of rhea seed, which have been inconclusive; (3) culture of varieties of cotton; (4) determination of various bulbs, tubers, and seeds of economic interest. The herbarium received 9,475 specimens, including

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a collection of plants made in the Kachin Hills. Specimens to the number of 14,482 were sent to kindred institutions in various parts of the world. The chief publication work of the year has been the completion of an account of the "Orchids of Sikkim," by Sir George King and Mr. R. Pantling. The roof of the herbarium was damaged by the earthquake, and some of the contents were destroyed by rain water.

Agricultural experiments

At the experimental farms on the Burdwan and Doomraon estates, and at the Sibpur Government farm, experiments were continued with different kinds of manure, with selected and imported seed, and with different methods of cultivation. The Sibpur farm has now been converted into a demonstration farm for the agricultural classes started at Sibpur College; it was not suitable for an experimental farm. The only valuable result from the Sibpur manure experiments of the year was the proof that crude saltpetre forms a most valuable manure for leaf-producing plants and for market gardens. Ratooning of a certain variety of sugar-cane was again successfully carried on at the farm; and among new crops tried at the farm mulberry and cassava were most successful.

On the Maharaja's farm, near Burdwan, a manure of bone-meal mixed with saltpetre gave excellent results with winter rice. The best out-turn of sugar was given by land manured with cow-dung and bone-meal. The best manure for jute proved, as in the previous years, to be simple cow-dung. Experiments with varieties of rice, sugar-cane, and potatoes were also in progress.

On the new Doomraon farm simple cow-dung gave the best results with wheat. The same 10 varieties of wheat were grown on experimental plots as in the previous year; and the local white and red varieties gave the heaviest yields (1,840 to 875 lbs. to the acre); the four Central Provinces varieties gave the lowest yields (465 lbs. to 255 lbs. per acre).

The arrangements for raising silk seed, which should be free from pebrine and other diseases, were continued under the supervision of Mr. Mukherji, the Cirencester graduate, who had studied at Paris and Lyons and in Lombardy. Fifteen seed-rearing nurseries were established under silk growers in the silk districts, and were supplied with the necessary scientific appliances. About 32,700 ounces of eggs were raised; and about 8,500 ounces were bought by the silk rearers, as compared with 3,200 ounces in the previous year.

North-Western Provinces and Oudh.

The report on the Cawnpore experimental farm for 1897-98 shows that the rainfall was 17 per cent. below the average, and was specially deficient in the cold weather; but owing to irrigation facilities the crops did not suffer, and the year is described as a good one on the whole. The trials of manures and of deep ploughing, with wheat, maize, and other staples, were continued, under the programme that has been in force for several years, on the many plots into which the farm has been divided. Among the more notable results of the year were the following: sheep-dung and poudrette gave the best yield from maize, while saltpetre manure gave the smallest yield. The best yield of maize gave 62 bushels per acre against 34 bushels from unmanured lands, the figures being much higher than those of previous years; the best yield of wheat gave 46 bushels per acre, against 38 bushels from unmanured land. For potatoes, poudrette was found to give the best yield. Out of different varieties of green manuring, old indigo refuse gave, as in previous years, the best yield, though it was only 34 bushels of wheat in 1898, as compared with 45 bushels in 1897. Experiments with sugar-cane were also carried out during the year.

In experiments with deep and shallow ploughing the plot ploughed with country ploughs gave about the same out-turn of wheat as that ploughed lightly with the improved plough. Contrary to general experience, the plot ploughed deepest gave much the poorest out-turn. The great advantage of the improved plough, which was perfected during the year, lies in the comparative facility and quickness with which it can be used. The results attained with varieties of cotton were not so good as in 1896–97, owing to frost and floods. The question of the comparative merits of foreign, native, or hybrid cottons is being studied. The experiments with Canadian oats resulted in a good yield of grain, whereas the crops in previous years have yielded a

poor grain harvest, and longer, though not heavier, straw. Experiments with American wheat, varieties of sugar-cane and carrots, also formed part of the year's work. The distribution of seed increased largely. AGRICULTURE.

Among private experimental farms, during 1896–97, the Meerut farm has demonstrated the manurial value of silt from a sewage drain in the neighbourhood of the farm, especially for root crops, and this silt is now widely used by the people around. This farm has now been taken over by the district board. The Jatau farm, belonging to and worked by a Rajput landholder, made experiments with manures and wheat. Experiments are being carried out at three farms where the soil is damaged by saline efflorescence, with a view to discover the possibilities of similar tracts. It is found that good crops can be obtained after thorough tillage, and that the admixture of sand with the soil is beneficial. Gypsum is also being applied, but the results of this have not been ascertained.

The length of avenues planted along roadsides during the year ending in September 1897 was 170 miles, and the total length of avenues in the provinces, after careful revision in some districts, came to 8,589 miles. The number of trees planted was greater than in the previous year. Efforts are being made to contract the area of operations in many districts; in 14 districts no addition whatever was made to the length of avenues. The net cost of maintaining and planting avenues and groves during the year was Rx. 1,000.

The Saharanpore Botanical Gardens had a fairly favourable season; the total rainfall was 35 per cent. below the average of the last 10 years, but there was a sufficient fall in the latter part of the year. The gardens were kept in good order. Experiments of economic value were continued in regard to the beggar weed, which cattle would not eat, the Arabian date palm, canaigre, sisal hemp, rhea, and eucalyptus. Both here and in the Lucknow Gardens varieties of the brinjal or egg-plant have been cultivated with success. An evaporating machine is being tried, with a view to the drying and preservation of vegetables and fruits; the results so far have not been altogether discouraging, and with larger experience it is hoped that the products will be improved.

A considerable number of ploughs, pumps, and other agricultural machines was sold, let on hire, or otherwise distributed by the Agricultural Department, chain pumps being especially in demand for irrigation. A new and improved plough was invented at the Cawnpore farm workshops during the year. Eight well-sinkers, provided with boring apparatus, were hired out by landholders, and made 105 borings in six districts, all expenses being borne by the landowners; the demand for these men's services was more brisk than in the previous year, when they made 50 borings, and their number had to be increased from three to eight. At all the large cantonments there are now private dairies managed on scientific principles. The Aligarh dairy was worked by Mr. Keventer, the Swedish expert, who had been previously employed to establish well-managed pattern dairies at the public expense. At the agricultural school, opened at Cawnpore in 1892, 13 students competed in, and 12 passed, the final examination, most of whom have secured suitable appointments under the Government. Both educational and agricultural inspecting officers report well of the school. Each student cultivated a quarter of an acre with his own hands throughout the year.

The rainfall of the autumn of 1897 was very good in the Punjab, but the winter rains were deficient; the fall in February was good, and the year as a whole was favourable. This resulted in a great extension of cultivation and a great fall in the price of food as compared with 1896–97. During the first quarter of the year the province was suffering from famine, and famine relief was in full operation until the breaking of the monsoon in July. The area harvested during the year was 39 per cent. above that of the previous year, 13 per cent. above that of the previous 10 years, and only 7 per cent. below the record year 1892–93. The yield was good generally. The area under irrigation showed a large increase, especially in the district supplied by the Chenab Canal, where colonisation progressed rapidly. Colonisation was also in progress on the Sidhnai Canal, and in an area in Lahore irrigated by the Bari Doab Canal. Over 40 per cent. of the total area under crops was irrigated. Punjab.

The village accountant surveyors (*patwaris*) continue to improve in efficiency; their books and returns are becoming more and more correct,

AGRICULTURE. These results are attributed to better education, more careful supervision, and more favourable prospects of promotion. Experiments with crop out-turns continue to be made. Among more important agricultural experiments were trials of four kinds of Egyptian cotton, which yielded only 417 lbs. of seed-cotton on an average per acre, as against 731 lbs. in the preceding year; and trials of American corn, which gave also a low out-turn for the year.

During 1897–98 the length of roadside and canal avenues increased by 336 miles, amounting at the end of the year to 11,834 miles. The gross cost of the avenues and plantations during the year was Rx. 39,900, while the receipts from sale of produce were Rx. 29,400.

Central Provinces. The monsoon of 1897 opened feebly in the Central Provinces, and the early sown crops, including rice, suffered considerably; but the loss was more than counter-balanced by excellent autumn rainfall, and the autumn crop was one of the best that has been reaped for years; millets gave a bumper out-turn. The spring crops suffered to some extent from deficiency in the winter rains, but are reported to have been generally fairly good. There was acute famine in the earlier part of the year, until the autumn crops had been harvested, when prices fell rapidly.

At the Nagpur Farm experiments were conducted with manures and a great many varieties of cotton and wheat. The Egyptian cottons showed themselves unable to grow without irrigation. Various kinds of wheat were received from New South Wales, and will be tested; but a series of years is needed before any conclusive result can be attained.

In 12 districts, where the settlements have been concluded, the land records system is now in fair order; the circles allotted to the accountant surveyors (*patwaris*) have been arranged; each village officer of this rank has to reside and hold an office in his circle; the inspectors (*kanungos*) have also been organised and have been made to reside within their charges. The staff of patwaris consisted, during the agricultural year ending in September 1897, of 4,687 men, of whom 182 were dismissed or degraded within the year, while 1,175 were fined or otherwise punished for neglect of duty. Notwithstanding this heavy list of punishments, the village officers are said to be discharging their duties well, and the work of the land records staff is said to be improving. The assistance of the *patwari* staff was most valuable in dealing with the famine. The percentage of entries in the village records checked by the inspectors ranged from 6 to 19 per cent.; and a fair proportion of the entries was further checked by three successive grades of superior officers, belonging to the Land Records Establishment and to the district revenue staff.

Burma The rainfall was both sufficient and seasonable, yielding a large rice crop in Lower Burma; it was light, but favourably distributed, in the upper province. The total area under rice in 1897–98 was, in Lower Burma, 5,913,000 acres, which was 91 per cent. of the total area under all crops, 6,478,000 acres. The increase in the cultivated area was nearly 7½ per cent. above the figures of the previous year. The exports of rice and rice-bran by sea to places outside Burma was 1,521,000 tons, as compared with 1,299,000 tons in the year 1896–97; the large increase being due to the famine demand in India during 1897, coupled with the full crop of winter rice in 1896–97. The prices of rice at seaports, in consequence of the large demand caused by the Indian famine, were still favourable to Burma producers, though not so high as in the previous year.

The area of occupied land in Lower Burma that was sold during the year was 395,000 acres, compared with 339,000 in the previous year. The total land under mortgage at the end of the year is returned at 340,000 acres, or 5 per cent. on the area under cultivation. The average price in the districts of largest transfers (Hanthawaddy and Thongwa) was 16 rupees and 15 rupees per acre. The return of the areas sublet in Lower Burma was 1,343,000 acres. Rents paid by sub-tenants averaged from 4⅔ rupees per acre in the lowest district to 9¾ rupees per acre in the highest district. In Hanthawaddy and Thongwa, where the areas sublet were 359,000 acres and 253,000 acres respectively, the average rent rates were 9 rupees per acre. In only three other districts (Henzada, Pegu, and Bassein) was as much as 100,000 acres held by tenants. For the whole of Lower Burma the rents paid all over the province averaged 8 rupees an acre, as compared with an average land revenue rate of about 2 rupees an acre.

The rainfall of Assam was sufficient in most districts; very heavy rains fell in the summer months, but the weather was unusually dry in December. The rice harvest was a good one; the season was not favourable for tea; the yield of oil-seeds was poor. Crops suffered considerably from floods caused by the earthquake. Prices of food rose generally. AGRICULTURE. Assam.

A system of continuous inquiry into agricultural conditions and statistics was inaugurated in the province during the year, and an experimental farm was started at Shillong. Crop experiments have been carried on as in preceding years. An effort is being made to encourage the growth of a superior kind of rice in the Khasi Hills, instead of the coarse rice now cultivated there. The cultivation of jute and of new sorts of potatoes also formed the subject of special inquiry and experiment during the year.

The training of village officials in surveying and in the maintenance of the village records in a correct state is carried on in three survey schools. During the year 90 candidates obtained certificates at the schools, as compared with 127 in the preceding year. The number of village revenue officers who have obtained certificates of qualification is returned at 951, as compared with 936 in the previous year, out of 1,065 of these officials on the rolls of the surveyed tracts. The testing of village maps and records by superior inspecting officers was less complete and satisfactory than is desirable. Out of 136,967 survey marks on the ground, 89,203 were found to be in good order, and 30,726 were repaired; 5,159 marks were lost or left unvisited.

The rainfall in Madras during 1897-98 was above the normal average, but was not well distributed; the south-west monsoon began late, and the north-east monsoon (or latter rains) failed generally. On the whole the season was not altogether favourable to agriculture, save on the west coast and in Ganjam, Vizagapatam, and the Nilgiris. The crop area was 2 per cent. above that of the preceding year, and the harvests were on the whole not much below the normal. The price of food grains rose 27 per cent. in the case of rice, and 40 per cent. in the case of millets, as compared with the previous year; but in the beginning of 1898 they began to fall again. Madras.

The advances to ryots for improving their lands amounted to Rx. 109,000 in 1896-97, as compared with Rx, 18,000 in 1895-96, Rx. 27,000 in 1894-95, and Rx. 195,000 during the two previous years of partial scarcity, 1891-93. The Land Records Department maintained survey schools in 116 subdivisions of 19 districts of Madras, and 12,430 village accountants were instructed in the surveying and demarcation of fields; while 601 out of the 634 revenue inspectors in the province have also been trained to survey lands and correct land records; schools were not held, for various reasons, in the Cuddapah, Trichinopoly, and Madras districts. The provincial veterinary officer, by visiting the district stock inspectors, by attending or organising cattle fairs, and by lecturing to classes at the Agricultural College of Saidapet, carried out part of the programme of the recently-established Civil Veterinary Department. The famine relief operations interfered with the work of agricultural experiment and inquiry. The Government dispensed for part of the year with the services of seven out of the 13 stock inspectors. The land records staff was also employed on famine duties.

The rainfall in Bombay was generally below the average, but it was well distributed, and the season was on the whole a good one. In Sind an exceptionally good inundation resulted in a bounteous harvest. Prices were high in July 1897, but fell about 50 per cent. by January. Bombay.

At the Poona demonstration farm the season was not altogether favourable, as the October rains were exceptionally heavy and proved disastrous to the crops, while the rabi sowings were hindered by want of rain in November and December. The fodder crops, however, were up to the average, and there was considerable recovery from the scarcity of the previous season. Great damage was done to crops by a pest of caterpillars. On the Surat farm the season was not favourable, and the experiments therefore proved disappointing. Still a good deal was done which may have permanent interest and value. The *Nilwa* variety of millet (*jowari*) proved to be the best fodder-yielding variety for the uncertain climate of the Deccan. Both the *Nilwa* and

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the *Sundhia* varieties fared better in the Deccan than the American millets. A trial of the value of lucerne and of lucerne mixed with guinea grass failed to give definite results, owing to the season. Guinea grass continues to be the best of the exotic fodder plants. Experience at the Poona farm more and more confirms the view that Indian staples will be improved, not by introducing and acclimatising foreign varieties, but by a continued process of seed selection for propagation of indigenous varieties; each approved local variety should be improved in its own locality, where it has attained success, as the survival of the fittest. The experience of the Poona farm superintendent, after careful trial of Egyptian cotton in several localities, leads him to the opinion that the best local varieties of cotton are better suited to the soil and climate than the Egyptian variety, which Mr. Jamsetjee Tata is making much effort to establish in Western India. Trials with various sugar mills showed the superiority of the Poona iron mill. The Surat farm is to be primarily devoted to ascertaining, establishing, and improving the best local varieties of millet (*jowari*), which is the staple food grain of Guzerat. The dairy farm supplied milk and butter to the value of Rx. 1,524 during the year; the profit on the farm was largely reduced by reason of an outbreak of foot-and-mouth-disease; and the income was less than the expenditure by Rx. 83 for the year. As yet the dairy farm cannot claim to have produced a local breed of improved milch cattle, which was one of the main objects in view.

Government loans to cultivators for permanent improvements and the purchase of seed and cattle amounted to Rx. 231,000, or Rx. 135,000 less than in 1896-97. The large decrease in these advances was due to the shorter duration of famine. Of this total Rx. 84,000 were spent on irrigational and protective improvements and wells, while Rx. 147,000 were taken for the purchase of cattle and seed. A special staff was organised for dealing promptly with applications for advances. The Government report that the advances were generally found to have been utilised for the purposes for which they were granted.

Berar.

The rainfall of the year in Berar was 19 per cent. below normal, but it was sufficient during the early part of the year, and the yield of staple food crops was excellent. Cotton, which covered last year 32·3 per cent. of the Berar cultivated area, gave more than double the yield of the previous year; millet, the chief food staple, linseed and wheat, all gave excellent results. The prices of millet (*jowari*) fell satisfactorily, and rice was cheaper than in the preceding year. The total occupied area rose from 7,890,000 acres in the previous year to 7,929,000 acres. Of the latter total, 84 per cent. was under crop in 1897–98, as compared with 79 per cent. in the year 1896-97. The area under cotton was 2,150,000 acres, which is 2 per cent. less than the average of the last ten years. A monograph on cotton cultivation in the province was included in the Berar Agricultural Ledger Series during 1898.

HORSE-BREEDING, AND VETERINARY COLLEGES.

HORSE-BREEDING.

In 1891 the Civil Veterinary Department took over the management of horse-breeding operations, which were formerly under the direction of military officers. The staff of veterinary surgeons concerned with this business is distributed over the several provinces where horses and mules are bred. These officers not only supervise horse-breeding and mule-breeding, but, in conjunction with the district authorities and local boards, they organise and control operations for combating cattle disease, and help to instruct Indian students at veterinary colleges. The returns of agricultural stock are not complete for all provinces, and are altogether wanting for Bengal; but the total number of horses and ponies in British India, outside Bengal, is returned at 1,120,000, while the number of mules and donkeys is given at 1,116,000. The North-West Provinces and Oudh return 494,000 horses and ponies, and 312,000 mules and donkeys; while the Punjab returns 577,000 mules and donkeys, and 277,000 horses and ponies; the Bombay returns show 130,000 horses and ponies, and 59,000 mules and donkeys. The totals in nearly every case show some falling off from the corresponding figures for the previous year. The

number of stallions kept by Government for horse-breeding, at the end of the year 1897–98, was 383, or three less than in the previous year; 41 new stallions were bought, and 44 were struck off the register, mostly because they were old and worn out. Among the new stallions were 16 English and 11 Australian thoroughbreds and 14 Arabs. At the end of the year there were 125 Arabs, 67 Norfolk trotters, 91 English and 36 Australian thoroughbreds. The number of donkey sires bought during the year was 43, while 33 died, or were sold. The number of donkey stallions kept by Government for mule-breeding was 392 at the end of the year. Of the total, 199 were Italian donkeys, but these animals are very expensive; 30 donkey sires were imported during the year, and a gradually increasing number of large donkey sires will, it is hoped, be obtainable from donkey breeders in the Punjab and Baluchistan. The donkey sires imported during the year were from Italy and Cyprus, and were of good stamp. Besides the Government stallions, 192 horse and donkey stallions were maintained by provincial governments, district boards, &c., and a considerable number by Native States. The officers of the Veterinary Department give every assistance to chiefs and to local bodies in obtaining good sires. HORSE-BREEDING.

At the end of the year 23,467 branded or certificated mares were on the list as available for horse-breeding, and 5,045 for pony-breeding, from sires kept by Government; these numbers are above the totals of 1896–97, and include some mares branded for mule-breeding. Of this number, 14,041 mares were covered by Government horse stallions during the year; and 4,269 foals were reported to have resulted from the coverings of the previous year, by horse and pony stallions, apart from 2,312 cases in which the results were unknown; 8,571 coverings are known to have yielded no foals. The average number of foals thrown to each horse stallion employed in the previous year ranged from 11·3 in the Deccan to 23·6 in Baluchistan; and for all India the average was $13\frac{3}{4}$ for horses and nearly $13\frac{1}{2}$ for ponies. It is said, however, that the statistics are not trustworthy, though more accurate than they were; and are probably below the truth. By the Government donkey stallions 17,159 horse and pony mares, besides 1,148 donkey mares, were covered; and 3,637 mule foals, besides 199 donkey foals, are reported to have been born from the coverings of the previous year. The veterinary officers believe that the produce of the mares served by Government sires is greater than these figures would show. The stallions kept by district boards, local bodies, and private individuals covered 8,420 mares during the year; 2,204 foals are reported to have been born during the year. The average yearly cost of keeping stallions was higher than in previous years by reason of the drought and dearness of grain; it ranged from Rs. 289 to Rs. 662 for horses, and from Rs. 165 to Rs. 490 for donkey stallions, in the several provinces. Baluchistan and the Deccan are the provinces where the cost of keeping stallions is highest. The number of remounts purchased for the army at the different horse fairs was 1,959; while 15,861 mules were bought and 8,410 hired for army purposes, chiefly in connection with the Frontier expedition.

The previous year was very disastrous for horse fairs; there was a satisfactory recovery in 1897–98, but four important fairs were not held at all owing to the plague. Thirty-two horse fairs were attended by officers of the Veterinary Department. Particulars have not been received as to two of these fairs, but at the remainder 46,406 horses and mules were shown, sales were effected of 11,695 animals, and Rx. 4,607 were distributed in prizes from public funds. The highest average price, Rs. 337, was paid for remounts at the Lahore fair; while the highest individual price, Rs. 560, and the lowest average price, Rs. 76, was paid at the Amritsar autumn fair. The highest average price paid for mules for army service was Rs. 181, at the Rawal Pindi show. The largest fairs were the two held at Amritsar in the Punjab, to which 5,049 and 5,188 animals were brought, and at which 367 Government remounts were purchased. The large fair at Batesar in the North-West Provinces is rapidly declining, and showed this year a decrease of 6,574 animals, partly owing to special causes. Horse fairs.

The Bacteriological Department was principally engaged in studying the symptoms and etiology of cattle disease, and experiments carried out by Dr. Koch in the North-Western Provinces demonstrated the identity of the Cattle dispensaries.

HORSE-BREEDING.

disease in India with the South African rinderpest. Some hundreds of cattle were immunised there and in Bengal by his methods with bile and with blood from diseased animals, with good results. The danger of importing the tick disease from Queensland through horses has been under consideration. The Imperial Bacteriological Laboratory has been moved to Muktesar in the Himalayas, near Almora, where investigations will be pursued and remedies devised and tried in a clear, cool atmosphere. The year was marked by severe rinderpest in Sind and many districts of the North-West Provinces. Other kinds of cattle disease prevailed in many provinces; and generally inquiries appear to show that the prevalence of remediable and perhaps preventable cattle disease is much greater throughout India than has been commonly reported or believed. The employment of veterinary assistants made great progress in Bengal during the year under review; the assistants are trained in the Bengal Veterinary Institution, and their work is reported to have been generally satisfactory. In Bombay 17 cattle dispensaries are open, besides those in the city of Bombay; of these five are itinerant and 12 are stationary. All of these institutions were said to be doing either "satisfactorily" or "very satisfactorily"; at each is stationed a trained native veterinary surgeon. The number of animals treated at these institutions during the year was 19,975. Three cattle dispensaries were open in the Central Provinces, at which 6,177 animals were treated, and there was one cattle dispensary in Bengal, and two in Berar. In the Punjab there are now nine stationary and eight itinerant cattle dispensaries, at which 1,096 in-patients and 14,885 out-patients were treated; these dispensaries cost Rx. 1,958 during the year. A veterinary hospital exists at Calcutta; the Darjeeling municipality employs a veterinary assistant; and three more cattle dispensaries have been opened in Bengal by estate owners, while several more such institutions are contemplated. Sixty-four veterinary assistants were employed in the Punjab, besides nine dispensaries; and in the North-West Provinces there were 20 assistants. The advance that has been made of recent years in the organisation to treat diseases of cattle is shown by the number of cattle treated by assistants, which was, in 1895–96, 111,723 for all India; in 1896–97, 118,517; and in 1897–98, 157,214.

Cattle fairs and cattle-breeding.

Veterinary officers attended and reported upon the cattle fairs in different provinces. It is generally found that the breed of cattle is in need of improvement, and that for this purpose it will be necessary to secure more and better bulls, and to stimulate an interest in the question among the people; but the funds and organisation for providing and keeping such animals have not yet been provided. The young calves, which are released in the name of religion to become brahmani bulls, are generally sorry animals. The number of such bulls is everywhere extremely small compared with the number of cows to be served. Male calves are rarely castrated till they are three or four years old; the operation is postponed in order to let the young animals grow up strong and sturdy. Most of the stock-getting all over India is done by these young bulls, which are pastured with the cows. Everywhere some, and in a few districts a good many, landholders keep stud bulls of good breed; a few district councils also keep stud bulls for the use of the people. In some regions, such as Lower Burma, where good fodder is always abundant, and in dry districts, such as Salem, Hansi, and Gujrat, excellent local breeds are maintained.

Veterinary colleges and schools.

The Bombay Veterinary College had 69 students, as in the previous year; of these only seven obtained diplomas at their final examination, and 21 passed other minor examinations. The demand for qualified veterinary assistants is in excess of the supply from all sources. The Lahore College had its full complement of students, and the results of the year were very satisfactory; out of 43 men presenting themselves, 38 gained diplomas at the final examination. The applications for admission are too many for the teaching power, the number of candidates for 15 vacancies having been 150. Qualified students from this college continue to obtain lucrative work in the army and in the Civil Department, and also abroad. At Calcutta and Ajmere the veterinary schools have now completed their third year; out of 15 Calcutta students who appeared for their final diploma, 14 passed successfully, while at

Ajmere 17 out of 19 were declared to be qualified as veterinary assistants. At the Burma school, out of 100 candidates for veterinary studentships, 24 were selected, but of these only 16 completed the course of instruction. HORSE-BREEDING.

AGRICULTURAL PRODUCE.

AGRICULTURAL PRODUCE. Agricultural Statistics.

Though there is still much room for improved accuracy, agricultural statistics are now available for all British India, except that for Bengal the returns of crops are approximate only, while stock statistics and returns of the irrigated area are for that province wholly wanting. Assigning to Bengal an irrigated area, and a supply of cattle proportionate to the corresponding totals in similarly situated provinces, we get the following totals for British India, during 1896-97 :—

	Acres.
Total area according to Survey	733,000,000
Deduct feudatory and tributary States	128,000,000
Deduct area for which no returns exist	68,000,000
Net area	537,000,000
Forest areas	64,000,000
Area not available for cultivation	154,000,000
Culturable waste other than fallow	95,000,000
Current fallows	47,000,000
Net area yielding crops during year 1896-97	177,000,000
of which bore two or more crops during the year	23,000,000
Total crop area	200,000,000
Total irrigated area (including 6,000,000 acres estimated for Bengal)	36,000,000
Area of rice crop	66,000,000
Area of millet crops	40,000,000
Area of wheat crop	16,000,000
Area of gram crops	8,000,000
Area of barley	6,000,000
Area of pulses and other food crops	25,000,000
Area of orchard and garden crops (chiefly food)	3,000,000
Total food crops	164,000,000
Area of sugar	3,000,000
Area of tea, coffee, spices, and condiments	1,500,000
Area of oil-seeds	11,000,000
Area of cotton	10,000,000
Area of jute and other fibres	3,000,000
Area of indigo	1,600,000
Area of poppy (opium)	600,000
Area of tobacco	1,100,000
Area of fodder crops	2,000,000
Area of other non-food crops	1,700,000
Total of non-food crops	36,000,000
Number of cattle (including 25 millions estimated for Bengal)	101,000,000
Number of sheep and goats (including 6 millions estimated for Bengal)	38,000,000
Number of horses, ponies, mules, and donkeys (including 300,000 estimated for Bengal)	2,500,000

AGRICULTURAL PRODUCE.

The total area on which crops were sown, and the area cropped more than once, is returned for the last five years thus :—

	Millions of Acres.					
	1891–92.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.
Total area of crops sown - - - - -	211	221	225	224	214	209*
Including area cropped more than once -	23	25	28	27	25	23

* The figures for 1896–97 exceed those given on the preceding page, because they include the area on which crops failed to come to maturity.

Regarding some of the more important staples of Indian agriculture, the following detailed account of the crops of 1897–98 is subjoined.

WHEAT.

The ascertained and estimated area under wheat is given thus :—

	Average Wheat Area for preceding Five Years.	Areas Cultivated with Wheat in	
		1896–97.	1897–98.
	Acres.	Acres.	Acres.
Punjab - - - - - - -	7,290,700	6,584,300	8,013,800
North-Western Provinces and Oudh -	4,536,700	3,772,800	4,552,100
Central Provinces - - - - -	3,633,300	1,969,600	2,162,200
Bombay - - - - - - -	2,416,000	1,446,700	1,860,600
Sind - - - - - - -	521,500	406,800	571,400
Berar - - - - - - -	887,500	381,400	390,400
Bengal - - - - - - -	1,522,100*	1,341,700	1,573,400
Rajputana† - - - - -	1,461,100	1,219,100	1,152,000
Central India† - - - - -	1,382,200	1,045,200	1,129,900
Hyderabad and Mysore - - -	1,155,800	856,600	1,095,800
TOTAL - - -	24,806,900	19,024,200	22,501,600

* Four years. † Excluding some Native States from which no forecasts have been received.

The wheat area of 1898 was below that of ordinary years, by reason of an unfavourable season in Western and Central India, though much above that of the preceding year. The total yield of wheat for all India was estimated at 6,506,800 tons, compared with 4,892,900 tons in the year 1896–97, and with 6,926,000 tons in years of normal harvest. Wheat prices were everywhere at famine rates, being especially high in Bombay and the Central Provinces, but a decline began to show itself at the beginning of 1898. The wheat exports of India were lower than in any year except the last; but with the decline in prices in India the export began to revive at the end of the financial year. The wheat export figures for the past few years have been—

1,053,000 tons in - -	1885–86	345,000 tons in - -	1894–95
689,000 „ - -	1889–90	500,000 „ - -	1895–96
1,515,000 „ - -	1891–92	95,000 „ - -	1896–97
608,000 „ - -	1893–94	120,000 „ - -	1897–98

During the last nine months of the year 1898 the Indian wheat exports amounted to 867,000 tons. In addition to this, some thousands of tons of wheat flour are annually exported. The prospects of the wheat harvest of 1899 are decidedly good in the Punjab and the North-West Provinces, but not so

good in the Central Provinces, especially in the southern districts, or in the Bombay Deccan. But on the whole they are favourable. AGRICULTURAL PRODUCE.

The area under, and the yield of, the main oil-seeds crops, namely, linseed, rapeseed, and mustard, for all India, may be approximately given thus:— OIL SEEDS.

	Average for preceding Five Years.	1896-97.	1897-98.
Area in acres — Linseed, rapeseed, and mustard.	20,000,000	14,920,000	18,230,000
Area in acres — Sesamum oil-seeds	3,500,000	3,371,000	3,309,000
TOTAL	23,500,000	18,291,000	21,539,000
Yield in tons estimated for all seeds*	1,463,000	1,177,000	1,752,000

* Exclusive of Bengal, where the crop of 1897-98 gave seven-eighths of an average yield; and of Nizam's territory.

The area sown decreased in 1896-97 by reason of the drought and famine, but rape, mustard, and linseed occupied a large area in 1897-98, and the yield was excellent, especially in the Punjab. The exports of oil-seeds in 1893-94 had been the largest on record, and amounted to 1,211,000 tons, valued at Rx. 16,753,000; since then they have fallen year after year, and were 570,000 tons, valued at Rx. 8,012,000, in 1896-97; and 628,000 tons, valued at Rx. 8,594,000, in the year under report.

The rice harvest in 1897-98 gave an exceptionally good yield in Bengal and Burma, and more than an average yield in Madras. The total normal area under rice in British provinces is said to be about 68,000,000 acres, of which 40,000,000 belong to Bengal, 6,400,000 to Madras, and 6,400,000 to Burma. The total yield of British India in an average year may amount to 28,000,000 tons of cleaned rice; but in 1897-98 the estimated out-turn in the above-named provinces alone equalled that amount. The quantity of rice exported from India and Burma beyond the sea was 1,337,000 tons, or 5 per cent. below the total of the preceding year; while the value of the rice exports fell from Rx. 11,947,000 to Rx. 11,587,000. More than two-thirds of the exports went from Burma, which also exported 585,000 tons of cleaned rice to India. The rice crop of 1898-99 for Bengal, Madras, and Burma is estimated to cover 52⅛ million acres, as compared with 52¼ millions in 1897-98, and with 52¾ millions in ordinary years. The harvest of 1898-99 in these three provinces is estimated at 26¼ million tons, against 25 million tons in 1897-98. RICE.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury Rx. 724,000, against Rx. 752,000 in the previous year. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy the same or a slightly higher rate of duty on rice exports. The total exports of rice from Siam, Saigon, Java, and Japan to Europe during 1898 were 231,000 tons, as compared with India's exports of 892,000 tons to Europe in the same year; for the year 1897 India's total had been 684,000 tons, and for 1896 it was 762,000, compared with 412,000 and 189,000 tons from the four other countries in the two years. The decrease in India's exports to Europe in 1897 was due to the famine, which deflected Burma's rice surplus to Bengal and Northern India; and the plentiful crop of 1897 enabled Indian rice to recover its position in the markets of Europe. This year (1899) Burma has an exportable surplus of 1,259,000 tons of rice.

AGRICULTURAL PRODUCE.

COTTON.

The area under cotton in India is returned and estimated as follows:—

	Average Cotton Area for preceding Five Years.	1897–98.	1898–99.
	Acres.	Acres.	Acres.
Madras	1,518,000	1,509,000	1,295,000
Bombay, Sindh, and Bombay Native States (estimated)	5,472,000	4,859,000	4,914,000
North-Western Provinces and Oudh	1,317,000	1,140,000	1,130,000
Punjab	997,000	1,128,000	789,000
Central Provinces	636,000	669,000	674,000
Berar	2,165,000	2,150,000	2,476,000
Nizam's Dominions (estimated)	1,587,000	1,654,000	1,738,000
Central India (estimated)	458,000	418,000	456,000
Rajputana (estimated)	576,000	543,000	479,000
Bengal	172,000	174,000	168,000
TOTAL	14,898,000	14,244,000	14,119,000

The shrinkage of the cotton area in 1898–99 was, as in the previous year, mainly due to the desire of the people to replenish as soon as possible their food stocks, depleted by the famine. The yield of 1898–99 was well above the average per acre.

The exports of raw cotton from India were—

1884–85	5,066,000	cwts., valued at	Rx.	13,286,000
1889–90	6,325,000	„ „	„	18,669,000
1892–93	4,789,000	„ „	„	12,743,000
1894–95	3,387,000	„ „	„	8,708,000
1895–96	5,248,000	„ „	„	14,108,000
1896–97	5,216,000	„ „	„	12,970,000
1897–98	3,723,000	„ „	„	8,871,000
1898–99 (9 months only)	3,558,000	„ „	„	7,613,000

TEA.

The following is an estimate of the cultivation and the production of tea in India for the last three years:—

	Area growing Tea, in Acres (Mature and Immature Plants).			Production of Tea in Lbs.		
	1895.	1896.	1897.	1895.	1896.	1897.
Bengal	104,197	105,707	128,067	34,832,000	36,652,000	38,951,000
Assam	276,290	291,909	310,550	99,613,000	109,727,000	107,266,000
Madras	6,797	5,270	6,335	655,000	642,000	398,000
North-Western Provinces	8,514	7,919	7,965	2,293,000	1,774,000	2,043,000
Punjab	9,243	9,830	9,970	1,993,000	2,147,000	2,302,000
Native States	9,480	11,444	30,076*	3,739,000	5,182,000	2,546,000*
Burma	1,196	1,201	747	283,000	302,000	276,000
TOTAL	414,988	433,280	493,710	143,408,000	156,426,000	153,782,000

* Figures doubtful.

The yield of tea per acre during the year is reported to have averaged 408 lbs. in Assam, where the season was, on the whole, unfavourable, and 381 lbs. per acre of mature plants in Bengal; elsewhere the yield was lower. The tea crop of 1897–98 was not up to the average. Prices in 1897 ranged

about 9 or 10 per cent. lower than in the previous year. The consumption of Indian tea in India is about 4⅓ million lbs., besides 3 million lbs. of China and Ceylon teas. The tea gardens of India employ about 560,000 labourers permanently and 102,000 temporarily, or 662,000 labourers in all. The total exports of Indian tea by sea are returned at— AGRICULTURAL PRODUCE.

78¾ million lbs. in	1886-87	129 million lbs. in	1894-95
107 „ „	1890-91	148¾ „ „	1896-97
126⅓ „ „	1893-94	151½ „ „	1897-98

During the year 870,000 lbs. of tea were also exported from India by land into neighbouring countries. The value of India's tea exports in 1897-98 was Rx. 8,059,000, or Rx. 66,000 less than in 1896-97. Australia took 4½ per cent. of India's tea exports, against 4 per cent. in 1896-97; less than 1 per cent. was sent to Persia, and about the same amount to Turkey in Asia; and 2⅔ per cent. to other countries; while the rest (137⅔ million lbs.) went to the United Kingdom. The quantity of Indian tea sent direct to the United States was 930,000 lbs., or 18½ per cent. above the consignments of the previous year.

According to the British returns the importations of tea into the United Kingdom have come from China, India, and Ceylon in the following proportions:—

In the Year	From China.	From India.	From Ceylon.
1865	93 per cent.	2 per cent.	0 per cent.
1875	86 „	13 „	0 „
1885	66 „	30 „	2 „
1895	16 „	46 „	32 „
1896	13 „	48 „	36 „
1897	11 „	50 „	38 „
1898	10 „	52 „	36 „

In 1898 tea from China was imported at an average price of about 7*d.* per lb., while Indian tea fetched at the auction sales in London an average price of about 8¼*d.* per lb., and Ceylon tea similarly fetched an average of 7¾*d.* per lb. In 1897 the auction averages were, Indian tea, 9*d.*, and Ceylon tea, 7⅞*d.* per lb.

The area under coffee shows a small decrease, as compared with the previous year's figures, thus:— COFFEE.

	1895.	1896.	1897.
	Acres.	Acres.	Acres.
Coorg	73,828	84,820	86,155
Madras	63,953	56,851	55,895
Burma	267	319	308
Mysore	138,670	141,528	125,876
Travancore, Cochin, &c.	7,033	5,748	7,840
TOTAL	283,751	289,266	276,074

The coffee industry is said to employ 37,819 persons permanently and 95,820 temporarily, or 133,639 in all. The normal yield of coffee per acre may be taken at from 2½ cwts. for the best European plantations in full bearing to 1 cwt. for Native plantations; much larger yields are sometimes reported. The coffee crop of 1897 98 in Southern India was poor, and the yield was 7·8 per cent. below the estimated out-turn of the preceding year. Prices of inferior grades of coffee fell considerably in the London market during 1898. The total coffee exports from India were 225,000 cwts. in 1897-98, as compared with 236,000 cwts. in the previous year, and 312,000 cwts. in the year 1891-92.

AGRICULTURAL PRODUCE. CINCHONA. Bengal.

The Government cinchona plantations of the Darjeeling district in Bengal suffered during the two preceding years from drought; but in 1897–98 they received an amount of rainfall almost equal to the average. The number of trees uprooted for bark was 245,000, and 40,000 young trees of the quinine-producing kinds were planted out. The total of plants at the close of the year was 2,479,000 (exclusive of 213,000, nursery stock), as against 2,683,000 at the end of last year. All the existing trees are of the quinine-yielding variety, except 178,000, which belong to the cinchonine-yielding kinds. The harvest of dry bark was 319,000 lbs., besides 418,900 lbs. purchased from private plantations. The factory produced during the year 4,075 lbs. of cinchona febrifuge and 10,148 lbs. of sulphate of quinine, the quantity of the latter being less than last year, but with that exception being the largest on record. Quinine is now sold to public institutions and Government offices at 13 annas per ounce, while the febrifuge is sold at 8 annas per ounce. The issues from the factory were 3,398 lbs. of febrifuge, and 10,939 lbs. of quinine. These issues yielded a profit of Rx. 1,163, after meeting all charges for maintaining the plantations, renewing plant, and working the factory. The capital cost of the plantation had been repaid by the sale of cinchona drugs in previous years. During the year 2,200 lbs. of quinine, as compared with 3,300 lbs. in the previous year, were put up in 5-grain doses; each dose is carefully packed, and be ars simple instructions in one of the vernacular languages of Bengal. This decline is disappointing, and will be made the subject of further inquiry. The total issues of quinine and febrifuge were 25 per cent. above those of the previous year, the ground lost in 1896–97 being thus regained, in spite of the decrease in the sale of packets noted above. The stock of drugs in hand fell slightly, to 5,640 lbs.

Madras.

In the Government plantations on the Nilgiri Hills, in Madras, the cinchona trees are mostly of the quinine-yielding varieties; and the Nilgiri barks are richer in quinine than corresponding species on the Darjeeling plantations. The rainfall on the Nilgiri Hills was very deficient, and the season was unfavourable; there was also severe frost during the cold season. The number of trees that were cut down was 119,000, while 123,000 died and were replaced. The plantations and nurseries continued in good order. The stock of dry bark in hand at the beginning of the year was 247,000 lbs.; the harvest of the year was 128,000 lbs.; the consumption of the factory was 241,000 lbs. The produce of the factory during the year was 5,092 lbs. of quinine, and 6,389 lbs. of cinchona febrifuge; 6,336 lbs. of the former, and 1,956 lbs. of the latter, were sold or issued to Government and municipal or local departments. The quantity of 5-grain quinine powders issued for sale to the public in the interior was 1,017 lbs., as compared with 727 lbs. in the previous year. The expenditure of the year was Rx. 9,530, and the value of drugs sold and issued was Rx. 9,552; the quinine was sold to the public at 18 rupees per lb., and the cinchona febrifuge at 10 rupees per lb.

The area under cinchona for all India is returned at 4,346 acres, compared with 5,916 last year. Of this area 2,178 acres are on Government plantations; the private plantations are mainly in the Madras presidency, where the total area under cinchona is returned at 1,486 acres, against 1,741 acres in 1896–97; but the yield of bark from the reduced acreage was much higher, being 1,144,000 lbs., as compared with 251,000 lbs. last year. The total yield from private plantations was 1,245,000 lbs. in 1897–98. The industry has declined of late, in consequence of the low price of quinine and of bark; the area under cinchona has fallen from 14,491 acres in 1886–87 to 4,346 acres in 1897–98; but this year there was a considerable rise in prices. The exportation of cinchona bark from India by sea, which was 3,074,000 lbs. in 1888–89, fell to 321,478 lbs. in 1896–97, and rose again in the year under review to 3,056,769 lbs.

JUTE.

Bengal continues to be, as heretofore, the only province that produces jute to any considerable extent. The season of 1896 was unfavourable to the jute crop, but the crop of 1897 was a good average yield. The normal jute area of Bengal is given at 2,243,000 acres; and the area under jute in 1897 was returned at 2,152,000 acres; but in 1898 only 1,624,000 acres, or 24½ per cent. less, were cultivated, owing to low prices of jute and high prices of food grains. The total yield, in bales of 400 lbs., is estimated at 4,600,000 bales

in 1898, against 6,189,000 bales in 1897. The fluctuations of the jute trade during recent years have been as follows :— AGRICULTURAL PRODUCE.

YEAR.	Exports of					TOTAL.
	Raw Jute.		Jute Manufactures.			
	Quantity.	Value.	Gunny Bags.	Gunny Cloth.	All Jute Manufactures, Value.	
	Cwts.	Rx.	No.	Yds.	Rx.	Value. Rx.
1883–84 - - - -	7,018,000	4,592,000	63,646,000	7,049,000	1,334,000	5,926,000
1887–88 - - - -	9,643,000	6,040,000	74,368,000	13,683,000	1,746,000	7,786,000
1891–92 - - - -	8,532,000	6,848,000	106,251,000	37,289,000	2,513,000	9,361,000
1892–93 - - - -	10,537,000	7,944,000	123,975,000	40,060,000	3,238,000	11,182,000
1894–95 - - - -	12,976,000	10,576,000	143,444,000	103,117,000	4,211,000	14,787,000
1895–96 - - - -	12,267,000	9,993,000	168,247,000	114,181,000	4,747,000	14,740,000
1896–97 - - - -	11,464,000	10,550,000	165,946,000	169,410,000	5,214,000	15,764,000
1897–98 - - -	15,023,000	10,130,000	197,620,000	242,814,000	5,930,000	16,069,000

Of the raw jute exports, 61 per cent. went to the United Kingdom, 18 per cent. to Germany, and 14 per cent. to the United States; of the manufactured jute, 16 per cent. went to the United Kingdom, 34 per cent. to the United States, and 13 per cent. to Australia.

The normal area under indigo in India is about 1,500,000 acres, of which about one-third belongs to Lower Bengal, about one-quarter to the North-West Provinces, and the remainder to Madras and the Punjab. The indigo area of 1897–98 in all provinces was 27 per cent. less than in the previous year, and 35 per cent. below the average; the yield was 17 per cent. less than that of 1897, and 35 per cent. below the average. The total exports of recent years have been :— INDIGO.

	Cwts.		Rx.	
1888–89 - - -	142,000	valued at	3,949,000	Exports by sea, besides about 2,500 cwts. annually exported across the land frontiers of India during the last three years.
1890–91 - - -	118,000	„	3,073,000	
1893–94 - - -	131,000	„	4,182,000	
1894–95 - - -	166,000	„	4,746,000	
1895–96 - - -	187,000	„	5,355,000	
1896–97 - - -	170,000	„	4,371,000	
1897–98 - - -	134,000	„	3,057,000	

The area under sugar in India during the years 1893–97 is given as follows :— SUGAR.

	1893–94.	1894–95.	1895–96.	1896–97.
	Acres.	Acres.	Acres.	Acres.
Bengal - - - - - - -	1,030,600	967,300	944,600	839,800
North-Western Provinces - - -	1,061,500	978,300	1,099,200	967,700
Oudh - - - - - - - -	60,900	255,700	289,800	246,500
Punjab - - - - - - - -	327,600	339,900	385,900	398,200
Other Provinces - - - - -	216,400	223,500	211,100	199,500
Total - - -	2,897,000	2,764,700	2,930,600	2,651,700

AGRICULTURAL PRODUCE.

The amount produced is estimated at about three millions of tons per annum.

The imports of sugar during the last three years are given as follows :—

	1895–96.	1896–97.	1897–98.
	Tons.	Tons.	Tons.
From Austria-Hungary	246	5,775	47,287
„ Germany	35,910	37,940	60,165
„ Mauritius	68,336	74,442	70,302
„ China	10,302	6,965	14,558
„ other Countries	11,450	8,998	19,444
TOTAL	126,244	134,120	211,756

The great increase in the imports from Austria and Germany in 1897–98 is ascribed to the closing of the United States markets to bounty-fed sugar by the imposition of countervailing duties. Inquiries as to the degree to which the Indian industry is affected by the competition of this sugar have been instituted.

MINES AND MINERAL RESOURCES.

MINERAL RESOURCES. COAL.

There was again an increase in the production of coal in India. The total yield was 3,537,000 tons in 1895, 3,848,000 tons in 1896, and 4,063,000 tons in 1897. The output in recent years from the principal coalfields has been—

	Coal produced in		
	Average of Three Years 1894–96.	1896.	1897.
	Tons.	Tons.	Tons.
Bengal	2,597,000	3,038,000	3,142,000
Central Provinces	135,000	142,000	132,000
Assam	173,000	177,000	186,000
Punjab	73,000	79,000	93,000
Baluchistan	18,000	11,000	9,000
Burma	18,000	23,000	11,000
Rewah State	122,000	115,000	125,000
Nizam's Dominions	265,000	263,000	365,000
TOTAL	3,401,000	3,848,000	4,063,000

The total yield of Indian coal 12 years ago, in 1886, was 1,389,000 tons. The importations of coal by sea fell from 747,000 tons in 1895–96 to 481,000 tons in 1896–97, and 248,000 tons in 1897–98; of this 88 per cent. came from the United Kingdom. During the year 1897–98 Bengal exported 210,000 tons of coal to foreign countries, besides 500,000 tons sent by sea to other Indian provinces. Burma now consumes Indian coal, almost exclusively, on her railways. The total number of persons employed in the coal mines was returned at 60,000. On all Indian railways 1,372,000 tons of coal were used in 1897, of which 1,324,000 tons, or nearly 97 per cent., were Indian coal.

IRON.

The Barrakur Ironworks in Bengal are the only works in India at which pig-iron is produced. In a previous statement it was said that the Barrakur

Company had agreed to supply the Indian Government with 10,000 tons of castings and pig-iron yearly for 10 years; 12,000 tons of pig-iron were supplied to the East Indian Railway during 1898. The total production of pig-iron was 19,719 tons; 8,515 tons were consumed in the Barrakur foundries and 15,779 tons were sold. The value of the iron sold by the Company during the last three years has been— MINERAL RESOURCES.

	Rx.
For the year ending 30th September 1896 - -	43,657
„ „ „ 1897 - -	75,500
„ „ „ 1898 - -	123,408

At present the Company are aiming at putting 30,000 tons of pig-iron annually on the market; but when they see an outlet for 50,000 tons they will be in a position to increase the output to that amount. The quality of the iron is uniform, and it is reported to be as good as Middlesborough iron.

No change is reported in the condition of the small indigenous smelting furnaces which are found in many parts of India. As was explained in a previous statement, the product of these furnaces is undersold by imported iron and steel. The production of iron ores during 1897 is returned at 43,000 tons, as compared with an average for the three years 1894–96 of 33,000 tons.

The production of petroleum from the principal oil-fields has been returned thus:— EARTH OIL.

Produced in	Average of Three Years 1894—1896.	1896.	1897.
	Gallons.	Gallons.	Gallons.
Burma - - - - -	12,904,000	14,816,000	18,905,000
Punjab - - - - -	2,000	2,000	2,000
Assam - - - - -	148,000	239,000	222,000
TOTAL - - -	13,054,000	15,057,000	19,129,000

In Upper Burma a further increase of yield was obtained from the Yenangyaung field by the Burma Oil Company, which has been at work in the Upper Burma field for over 20 years, and which possesses a refinery in Rangoon, and has a staff of skilled American oil workers. The northern section of the Upper Burma oil-field, known as the Yenangyat field, was successfully worked during the year. The output in Assam increased in 1896, as the Assam Oil Syndicate again began to raise oil; when sufficient refining apparatus is available, a further increase is expected. In Baluchistan the attempt to work the oil sources was not renewed.

The importations of earth-oil into India by sea increased considerably during the year, exceeding even the high figure of 1893–94.

IMPORTATIONS of Mineral Oils into India.

——	1883-84.	1893-94.	1895-96.	1896-97.	1897-98.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
From United States -	12,714,697	49,226,000	22,494,000	19,312,000	25,967,000
„ Russia - -	—	34,045,000	39,876,000	45,484,000	50,672,000
„ elsewhere - -	1,169,141	395,000	943,000	3,625,000	10,687,000
TOTAL - - -	13,883,838	83,666,000	63,313,000	68,421,000	87,326,000

The import duty on petroleum was doubled in March 1894, and is now one anna (about one penny) per gallon, but the increased duty does not appear to have permanently or seriously affected consumption. The value of the oil imported during 1897–98 was Rx. 3,652,000, and that of the locally-produced oil is estimated at Rx. 226,000 for the year 1897.

MINERAL RESOURCES.

GOLD.

The gold industry of Mysore is chiefly represented by the Mysore and the Champion Reef Companies, which between them produce fully two-thirds of gold extracted. The outturn in 1888 was 35,034 oz.; for the last three years it has been as follows:

	1896.	1897.	1898. (Approximate).
	Oz.	Oz.	Oz.
Mysore Mine - - -	114,789	127,572	160,165
Champion Reef - - -	85,995	124,347	135,412
Ooregum - - - -	65,583	55,831	50,478
Nundydroog - - -	44,925	56,377	40,080
Coromandel - - - -	6,303	12,989	11,400
Other mines - - - -	9,798	12,591	figures not available
TOTAL - - -	327,393	389.707	397,535

There is an increase of 20,000 oz. in the outturn for 1898 of the five companies named, in spite of the fact that three of them produced less gold than in 1897.

RUBIES.

The Burma ruby mines were worked by the company and by native licensed miners under the company; but the ruby industry was seriously affected by the war, plague, and famine in India, which for the time almost spoilt the ruby market, and native mining has shown a decrease. A remission of rent amounting to two lakhs of rupees was granted to the company.

X.

PUBLIC WORKS.

PUBLIC WORKS.

DURING the year under review the Public Works Department was represented in the Council of the Governor General by Sir A. C. Trevor, K.C.S.I. The post of Public Works Secretary was held by Colonel Sir W. S. S. Bisset, R.E., K.C.I.E., until November 1897, when he relinquished the post for that of Government Director of the Indian Railway Companies in England. Col. T. Gracey, R.E., succeeded Sir Wm. Bisset as Public Works Secretary until January 1898, when he retired and Mr. F. R. Upcott was appointed to the vacancy.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at a strength below that of the preceding year.

The following statement shows the composition of the superior engineer establishment, as it stood on the 30th June in 1897 and 1896 :—

	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers	57	7	3	67
Other military officers	6	—	—	6
Civil Engineers :				
Appointed from Europe	300	53	51	404
Europeans appointed in India	163	4	7	174
Natives appointed in India	62	17	26	105
TOTAL for 1897	588	81	87	756
TOTAL for 1896	611	80	85	776

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three presidencies were as follows:—

	India.	Madras.	Bombay.	TOTAL.
Europeans	226	69	22	317
Natives	344	109	170	623
TOTAL	570	178	192	940

The engineering branch of the Department is divided into two services, imperial and provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the imperial service is recruited from the Royal Indian Engineering College at Cooper's Hill; the provincial service draws its recruits from students of the Indian colleges who are natives of India, and from upper subordinates of the Public Works Department.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an imperial service under the direct control of the Government of India; the establishment employed on irrigation, and on buildings and roads, is subdivided into different provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept,

PUBLIC WORKS.

but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1897–98 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.

	Rx.
Railways	21,260,886
Irrigation	3,569,864
Buildings and Roads	667,823
TOTAL	25,498,573

EXPENDITURE (exclusive of Rx. 23,708 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
Railways:	Rx.	Rx.
Construction	3,792	3,632,005
On Revenue Account	22,693,502	—
Irrigation:		
Construction	141,414	692,431
Ditto - from Famine Relief Grant	37,517	—
On Revenue Account	3,002,671	—
Buildings and Roads:		
Military Works	1,168,385	—
Civil Works	4,250,551	—
Miscellaneous Public Improvements	—	4,105
TOTAL	31,297,832	4,328,541

The expenditure charged against revenue includes the following items of "Interest on Debt" : —

	Rx.
Railways	5,509,138
Irrigation	1,284,249

On the 31st of March 1898 Rx. 131,030,304 of permanent public debt had been incurred on account of railways, and Rx. 32,639,803 on account of irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is Rx. 2,676,715.

RAILWAYS.

RAILWAYS.

A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of the chief facts. As the accounts of the several railways had not been finally closed when the following statistics for the year 1896 were prepared, the figures must be accepted as only approximately correct.

The railways of India may be broadly divided into the Guaranteed, the State, and the Assisted. In the early days of railway enterprise the agency of private companies guaranteed by the State was exclusively employed, and nearly all the great trunk lines were made under this system. The chief terms of the contract between the old guaranteed companies and the State were as follows: the Government gave the land required free of charge; it also guaranteed interest, generally at the rate of 5 per cent., on the share capital raised with its consent, and a lower rate upon debenture capital. A general control and supervision over the proceedings of the company was also retained, and Government stores and troops were to be carried on favourable terms. If the net profits in any half-year fell below the amount of guaranteed interest the Government made up the deficiency. If they exceeded this amount the surplus was equally divided between the Government and the company. Moreover, the Government had the right of buying the undertaking at specified dates, on

payment of the value of the stock calculated at its market price on the average of the three preceding years. In this way the East Indian Railway was acquired in 1880, the Eastern Bengal Railway in 1884, the Scinde, Punjab, and Delhi Company's lines in 1885–86, the Oude and Rohilkund Railway at the end of 1888, and the South Indian Railway in 1890. In 1870 a new policy of railway development by the direct agency of the State was inaugurated; and in 1880–81 the system of encouraging private enterprise by State assistance was again resorted to. Both agencies are now employed side by side. The experience gained of the working of the old guarantee system has, however, suggested various modifications in the relations between the State and the companies which have more recently been formed for the construction and working of railways, and the nature of the assistance granted now varies considerably. In some instances, of which the Bengal and North Western Railway is the most important, lines have been constructed without any direct pecuniary assistance; in others a subsidy or limited guarantee has been granted. Special terms have been offered by the Government to attract private enterprise to the construction of branches and feeder lines to the larger systems. Those terms include the concession by the parent line of favourable working rates, and sometimes a rebate on traffic interchanged between the two lines or a guarantee. The agency of private companies has also been employed by the Government both in the construction and working of State lines. In all cases the Government has the power of taking over the railway at specified periods on stated terms.

The following figures, taken from the Finance and Revenue Accounts of 1897-98, show the financial result of the working of the railways in India for the year ending 31st March 1898:—

	Imperial.	Provincial.	England, including Exchange.	Total.
REVENUE.				
(Railways.)	Rx.	Rx.	Rx.	Rx.
State Railways — (Gross traffic receipts)	18,985,869	58,296	360	19,044,525
Guaranteed Companies — (Net traffic receipts)	2,201,392	- -	- -	2,201,392
Subsidised Companies — (Repayment of advances of interest)	12,990	- -	1,979	14,969
Total	21,200,251	58,296	2,339	21,260,886
EXPENDITURE.				
(Railway Revenue Account.)				
State Railway:				
Working expenses	9,156,546	44,656	- -	9,201,202
Interest on debt	3,991,278	- -	1,517,860	5,509,138
Annuities in purchase of railways	- -	- -	2,676,715	2,676,715
Interest chargeable against companies on advances	87,731	- -	342,142	429,873
Interest on capital deposited by companies	16,584	- -	1,226,704	1,243,288
Guaranteed Companies:				
Surplus profits, land and supervision	126,213	- -	- -	126,213
Interest	8,899	- -	3,368,185	3,377,084
Subsidised Companies:				
Land, &c.	103,577	10,183	- -	113,760
Miscellaneous railway expenditure	15,475	754	- -	16,229
Total	13,506,303	55,593	9,131,606	22,693,502

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, and Scinde, Punjab, and Delhi Railways, through the agency of sinking funds

RAILWAYS.

and annuities, and of that portion of the Oudh and Rohilkhand Railway debt incurred in excess of the money raised through agency of the "discount" sinking fund; the figures also include charges for land required by the companies, for control, and for miscellaneous items, such as headquarters establishment and surveys. After meeting all these expenses, the total charge to the State in 1897–98 was Rx. 1,432,616.

The statistical results of the working of the various classes of railways during 1898 are given in the following table. The aggregate net earnings of all Indian railways amounted to 5·30* per cent. on the total capital outlay on open lines, including steamboat service and suspense items, but excluding other indirect charges, against 5·08*† per cent. in the previous year :—

RAILWAY STATISTICS, 1898.

CLASS.	Length of Line open on the 31st December 1898.	Total Capital Outlay on Open Lines to the 31st December 1898, including Steamboat and Suspense.	Total Number of Passengers carried.	Total Weight of Goods carried.	Gross Earnings, including Steamboat Service.	Working Expenses, including Steamboat Service.	Net Earnings, including Steamboat Service.	Percentage of Net Earnings on Capital Outlay on Open Lines.
Standard Gauge.	Miles.	Rx.	No.	Tons.	Rx.	Rx.	Rx.	
State lines worked by companies	4,005·78	66,836,385	25,155,694	11,174,733	7,488,014	2,740,389	4,747,625	
State lines worked by the State	4,815·47	72,741,148	29,712,049	‡7,782,054	5,942,999	2,977,960	2,965,039	
Lines worked by guaranteed companies	2,588·13	51,186,379	34,727,220	5,254,620	6,018,320	3,309,121	2,709,199	
Assisted companies	620·68	4,116,661	3,128,706	373,881	327,380	159,298	168,082	
Lines owned by Native States and worked by companies	632·52	6,327,342	2,635,366	1,078,395	498,117	211,550	286,567	
Lines owned by Native States and worked by State Railway Agency	123·86	767,400	1,039,435	156,470	69,500	38,300	31,200	
Total for 1898	12,786·44	201,975,315	96,398,470	‡25,820,153	20,344,330	9,436,618	10,907,712	5·40
Total for 1897†	12,162·14	195,487,554	94,987,070	25,323,367	18,907,790	9,061,339	9,846,451	5·03
Metre Gauge.								
State lines worked by companies	6,625·12	51,915,587	44,450,802	7,630,730	5,393,118	2,877,152	2,515,966	
State line worked by the State	643·99	5,065,850	4,793,603	608,626	634,652	268,470	366,182	
Assisted companies	270·20	1,662,102	1,045,111	439,777	173,855	101,250	72,605	
Lines owned by Native States and worked by companies	188·30	877,310	1,013,341	216,141	62,781	35,000	27,781	
Lines owned and worked by Native States	921·74	3,295,733	2,603,220	472,273	347,426	176,525	170,901	
Total for 1898	8,649·35	62,816,582	53,906,077	9,367,547	6,611,832	3,458,397	3,153,435	5·02
Total for 1897†	8,400·61	61,483,070	55,294,451	8,368,058	6,513,137	3,324,250	3,188,887	5·21
Special Gauges.								
State lines worked by the State	28·25	91,027	57,589	16,381	9,211	7,098	2,113	
Assisted companies§	123·97	614,624	590,253	312,927	102,660	64,648	38,012	
Lines owned by Native States and worked by companies	97·83	291,460	298,501	64,741	20,600	24,930	*—4,330*	
Lines owned by Native States and worked by State railway agency	25·37	102,602	71,337	13,018	6,545	5,774	771	
Lines owned and worked by Native States	94·36	249,000	277,000	31,900	37,550	20,800	16,750	
Total for 1898§	369·78	1,348,713	1,294,680	438,967	176,566	123,250	53,316	3·95
Total for 1897†	315·15	1,161,589	946,328	203,172	166,657	100,670	65,987	5·68
TOTAL of all Railways for 1898§	21,805·57	266,140,610	151,599,227	‡35,626,667	27,132,728	13,018,265	14,114,463	5·30
TOTAL of all railways for 1897†	20,877·90	258,132,214	151,137,849	33,894,597	25,587,584	12,486,259	13,101,325	5·08

* Excluding the West of India Portuguese, Pondicherry and Karaikkal-Peralam Railways. † As corrected from later information
‡ Excluding the Calcutta Port Commissioners' railway for which information is not available.
§ Excluding the Howrah-Amta and Howrah-Sheakhalla Tramways which were constituted railway from the 7th October 1898, as particulars have not been furnished.

It will be observed that, with an increase of 927·67* miles, or 4·44 per cent., in the open. mileage as compared with 1897, the gross earnings and working expenses show increases of Rx. 1,545,146, or 6·03 per cent., and of Rx. 532,006, or 4·26 per cent., respectively, resulting in an increase of Rx. 1,013,139, or 7·73 per cent., in the net earnings. RAILWAYS.

The total number of passengers carried show an increase of 461,378, and the quantity of goods handled of 1,732,070 tons as compared with the previous year.

The total railway mileage on each gauge opened during the year, and the sections opened, were as follows :—

	Miles	*Miles.*	*Miles.*
STANDARD GAUGE.			
East Indian—			
Háthras Junction to Háthras City		5·61	
Bengal-Nágpur—			
Sini Junction to Khargpur	99·50		
Khargpur to Balasore	71·75		
Khargpur to Kolaghat	35·50		
		206·75	
Indian Midland—Saugor to Damoh		47·83	
Oudh and Rohilkhand State—Rae Bareli to Benares Cantonment		138·69	
Eastern Bengal State—Panchooria Junction to Sivarampurp-		7·00	
East Coast State—Puri (temporary station) to Puri (new station)		1·84	
Bezwada-Madras (Ennúr-Bezwada section)—			
Tadepalli (Kistna Canal Junction) to Nellore	154·12		
Nellore to Gudur	24·00		
		†178·12	
Tápti Valley—Kankarakhari Junction to Vyára		35·50	
			621·34
METRE GAUGE.			
Bengal and North-Western—			
Mohinpurwa to Katarnian ghât	27.08		
Balrámpur to Tulsipur	19·00		
Turtipur ghât to Azamgarh	51·35		
Bridge (Elgin) over the Gogra at Bahrámpur and approaches	3·27		
		100·70	
South Indian—			
Nellore to Gudur	‡—24·00		
Tanjore Junction to Pulliarpatti	4·60		
		‡— 19·40	
Assam-Bengal—Badapur Junction to Silchar		18·62	
Burma—			
Mogaung to Myitkyina	37·00		
Mychaung to Sedaw	13·00		
		50·00	
Ledo and Tikak-Margherita Colliery—Dehing Bridge to Ledo		§ 3·00	
Mymensingh-Jamalpur-Jagannathganj — Mymensingh to Singhjani		33·00	
Jodhpore-Bickaneer, Bickaneer Section—Pickaneer to Dalmera		42·00	
Jámnagar—In Bedi Bandar Dock Estates		§ 3·99	
Dhrángadrá—Wadhwan Junction to Dhrángadrá		21·00	
			252·91
SPECIAL (2FT. 6IN.) GAUGE.			
Cooch-Behar—Right bank of Torsa river to Town of Cooch Behar		3·25	
Tárakeshwar-Magra—Tárekeshwar (terminus of Tárkessur railway) to Magra, a station on the East Indian Railway)		‖ 31·12	
Tezpur-Balipara—Tezpur ghât to Balipara		‖ 20·10	
Carried forward			

* For difference between this figure and the total length shown as opened during 1893 in paragraph 3, *see* foot-note on page .

† Including 24 miles, Nellore to Gudur, of the South Indian Railway, converted to standard gauge and transferred to the Bezwada-Madras Railway.

‡ *See* foot-note † above.

§ Opened previously but omitted.

‖ Constituted a railway with effect from the 19th May 1896 (Tárakeshwar-Magra, previously omitted) 3rd May 1898 (Tezpur-Balipara) and 7th October 1898 (Howrah-Amta and Howrah-Sheakhalla).

RAILWAYS.

	Miles.	Miles.
Brought forward - - -		
SPECIAL (2FT.) GAUGE.		
Howrah-Amta—		
Telkulghat (Howrah) to Amta - - - 27·25		
Bárgachi to Jagatbalabpur (Branch) - - 1·50		
	*28·75	
Howrah-Sheakhalla—		
Kadamtolla (junction with the Howrah-Amta) to Sheakhalla - - - - - - - 17·25		
Chanditollah to Jonai (Branch) - - - 2·00		
	*19·25	
		102·47
TOTAL - - -		†976·72

* Constituted a railway with effect from the 19th May 1896 (Tárakeshwar-Magra, previously omitted), 3rd May 1898 (Tezpur-Balipara) and 7th October 1898 (Howrah-Amta and Howrah-Sheakhalla).

† For difference between this figure and the total length shown as opened during 1893 in paragraph 3, *see* foot-note on pages.

The additional lengths sanctioned for construction were—

STANDARD GAUGE.	Miles.	Miles.	Miles.
East Indian—			
Skikohabad to Farukhabad - - - - *66·00			
Agra to Delhi (chord line) - - - - *121·16			
		187·16	
Mári-Attock—Lawrencepur to Campbellpur Cantonment -		6·75	
Kotri-Rohri—Hyderabad to Rahoki - - - - -		6·25	
Southern Punjab—Narwana to Kaithal - - - -		25·00	
Hardwar-Dehra—Hardwar to Dehra - - - -		†2·01	
			227·17
METRE GAUGE.			
South Indian—			
Negapatam to Nagore - - - - - 4·49			
Tanjore Junction to Pulliarpatti - - - †4·60			
		9·09	
Burma—			
Meiktila to Myingyan - - - - - 57·70			
Sagaing to Alon - - - - - - 74·50			
		132·20	
Bengal Dooars—			
Malbazar to Hantupara - - - - 45·66			
Dam Dim to Bagrakote - - - - 6·76			
Deomoni Hat to Lalmoni Hat - - - 69·13			
		121·55	
Ledo and Tikak-Margherita Colliery—Dibing Bridge to Ledo		†3·00	
Jodhpore-Bickaneer, Bickaneer Section — Lankaransar to Suratgarh - - - - - - - - -		63·00	
Oodeypore-Chitor—Debari to Oodeypore - - - -		6·44	
Jámnagar—In Bedi Bandar Dock Estates - - -		†3·99	
			339·27
SPECIAL (2FT. 6IN.) GAUGE.			
Barsi Light—Barsi Road to Pandharpur - - - -		33·00	
Rajpipla—Rajpipla to Nankod - - - - -		17·80	
Tárakeshwar-Magra—Tárakeshwar (terminus of Tárkessur Railway) to Magra, station on the East Indian Railway -		31·12	
Tezpur-Balipara—Tezpur ghât to Balipara - - -		20·10	
SPECIAL (2FT.) GAUGE.			
Kalka-Simla—Kalka to Simla - - - - - -		68·00	
Gwalior-Sipri—Gwalior to Bhind - - - - -		45·79	
Howrah-Amta—			
Telkul ghât (Howrah) to Amta - - - 27·25			
Bárgachi to Jagatbalabpur (Branch) - - 1·50			
		28·75	
Howrah-Sheakhalla—			
Kadamtolla (junction with the Howrah-Amta) to Sheakhalla - - - - - 17·25			
Chanditollah to Jonai (Branch) - - - 2·00			
		19·25	
			263·79
TOTAL - - -			830·80

* Commencement of work not yet authorised. † Sanctioned previously, but omitted.

The total mileage under construction or sanctioned for commencement at the close of the year, *i.e.*, on the 31st December 1898, was as follows;— RAILWAYS.

	Miles.	*Miles.*
STANDARD GAUGE.		
State lines worked by companies	615·76	
State lines worked by the State	379·58	
Lines worked by guaranteed companies	134·70	
Assisted companies	256·84	
Lines owned by Native States and worked by companies	74·12	
Lines owned by Native States and worked by State railway agency	80·32	
		1,541·32
METRE GAUGE.		
State lines worked by companies	1,139·82	
State lines worked by the State	71·26	
Assisted companies	237·61	
Lines owned by Native States and worked by companies	428·29	
Lines owned and worked by Native States	286·06	
		2,163·04
SPECIAL (2FT. 6IN.) GAUGE.		
State lines worked by companies	56·67	
State lines worked by the State	20·08	
Assisted companies	64·00	
Lines owned by Native States and worked by companies	17·80	
Lines owned by Native States and worked by State railway agency	11·01	
SPECIAL (2FT.) GAUGE.		
Assisted companies	68·00	
Lines owned and worked by Native States	118·75	
		356·31
TOTAL		4,060·67

The following gives a brief abstract of the important works completed and in progress during 1898:—

East Indian Railway.—The Háthras city branch, 5·61 miles, from Háthras Junction to Háthras city, was opened for goods traffic on the 1st November 1898. The Moghal Sarai-Gya extension is likely to be opened for traffic at the end of 1899.

South Behar (Luckeeserai-Gya) Railway.—This line will probably be opened for traffic on the 31st March 1899.

Bengal-Nágpur Railway.—The Sini-Khargpur section, 99·50 miles, of the extensions of this railway was opened for goods traffic on the 1st June and for passenger traffic on the 20th September 1898. The Khargpur-Kolaghat, 35·50 miles, and Khargpur-Balasore, 71·75 miles, sections were opened for goods traffic on the 17th December 1898, and will probably be opened for passenger traffic, together with the Balasore-Cuttack section, 118·50 miles, early in 1899. The section from Bowreah to Howrah was sanctioned during the year, and the question of the railway's entrance to Calcutta finally decided.

Work was started on the Raipur-Dhamtari feeder line in October 1898.

Indian Midland Railway.—Of the Saugor-Katni extension, the section from Saugor to Damoh, 47·83 miles, was opened for traffic on the 26th March 1898 and from Damoh to Katni, 56·27 miles, on the 1st January 1899.

Bína-Goona Railway.—On the Goona-Bara extension, rails were laid throughout just before the monsoon. The formation is practically complete, and the girder erection at the Parbatti Bridge (11 spans of 100-foot girders) is expected to be finished in February 1899. Several stations are finished and others approaching completion. The extension is likely to be opened for traffic in April 1899.

North-Western (State) Railway.—The down main line from Piprí to Kotri, 82 miles, and that from Kiámári to Kurrachee city, 3 miles, were opened on 3rd and 30th May 1898. This completed the opening of the whole of the double line between Kiámári and Kotri.

Very good progress was made at Samásata in connection with the junction arrangements with the Southern Punjab Railway.

RAILWAYS.

On the Mári-Attock Railway, platelaying has been completed, and watering arrangements and work on the Campbellpur Junction Station are in hand. It is expected that the line will be ready for opening in March 1899.

On the Lyallpur-Khánewal extension, platelaying is in hand as far as Toba Tek Singh, and station buildings are nearly completed along the whole line. Land between Khánewal and the Ravi has been acquired, and jungle clearing and earthwork are in hand. All the piers of the Ravi Bridge are well in hand.

All the piers for the Indus Bridge at Kotri (one span of 100 feet and five spans of 350 feet) have been completed and girder erection has been commenced.

Southern Punjab (Delhi-Samásata) Railway.—During the year, the ballasting of the main line was completed throughout. The branch line from Narwana to Kaithal, the construction of which was sanctioned in March 1898, will probably be ready for inspection prior to its opening early in February 1899.

Oudh and Rohilkhand State Railway.—A project for the remodelling of the Benares Cantonment Station to serve both the Oudh and Rohilkhand and Bengal and North-Western Railways have been submitted for sanction.

The Rae Bareli-Benares Railway, 138·69 miles, was opened for traffic on the 4th April 1898, and has since the 1st November 1898 become the main line between Benares and Lucknow, reducing the distance between these two places by about 12 miles.

The construction of the Gháziabad-Moradabad Railway was commenced by State agency during the last quarter of 1898. Earthwork has been started and arrangements are being made for the collection of materials for bridges and other works. The most important work is the Ganges Bridge at Gurmukhteswar, 11 spans of 200 feet.

Hardwar-Dehra Railway.—Construction has been commenced along the whole length. Notwithstanding the difficulty experienced in getting requisite labour, earthwork has progressed fairly well. Tunnel No. 1 was completed and No. 2 nearly so by the 31st December 1898. Except erection of girders which are awaited, seven out of the ten large bridges have been completed and work on the other three is in progress. Dehra station building is in hand and arrangements are being made for commencement of work on the other station buildings, &c. Unless delayed on account of the non-arrival of girders, the railway will probably be ready for opening by the 31st December 1899.

Eastern Bengal State Railway.—Seven miles of the Rajbári-Faridpur branch from Panchooria to Shivarampur were opened to traffic on the 20th October 1898, and the remaining length will be ready for opening about the end of March 1899. On the Northern section, work is in progress on the bridge over the Teesta River at Kaunia.

Brahmaputra-Sultanpur Railway.—The construction of this line is in progress. The section up to Bogra will probably be opened about the middle of March 1899 and the remainder a year later.

Mymensingh-Jamalpur-Jagannathganj Railway.—The length from Mymensingh to Singhjani, 33 miles, was opened for goods traffic on the 15th October 1898 and for coaching traffic on the 1st November 1898. The remaining portion is well in hand, and will probably be opened for traffic in July 1899.

Cooch Behar State Railway.—The extension from the Torsa River to the town of Cooch Behar, 3·25 miles, was opened for traffic on the 15th December 1898, and that from Cooch Behar to Santrabari is in progress. The remaining portion in the Native State from Cooch Behar town to the right bank of the Kaljani River is expected to be opened shortly.

East Coast State Railway.—On the 1st June 1898, the extension from old Puri Station to the new Puri terminus, 1·84 miles, was opened for traffic.

The low level ferry sidings at the Gódávari River crossing were opened on the 22nd November 1898, enabling waggons to be slipped without goods breaking bulk.

RAILWAYS.

The Gudur-Nellore section of the South Indian Railway, converted to the standard gauge, was opened as a portion of the Bezwada-Madras Railway on the 1st November 1898. The section of the East Coast State Railway, Kistna Canal Junction to Bezwada, 2·66 miles, which was closed for traffic on the 1st January 1898, and the Nellore-Kistna Canal Junction section, 154·12 miles, of the Bezwada-Madras Railway were opened for all descriptions of traffic on the 20th December 1898. The remaining length of the Bezwada-Madras Railway from Ennúr to Gudur, 76 miles, will probably be opened on the 1st February 1899.

The left approach of the Gódávari Bridge is practically finished and the right approach is in progress. Both abutments and 10 piers have been completed, the superstructure of 12 piers is in progress, and the wells of 20 piers are in process of being sunk. Girders, caisson tubings, are awaited.

Bombay, Baroda, and Central India Railway.—Good progress has been made in doubling the line between Bombay and Baroda. During 1898 the second line on the Palghar-Dáhánu, Amroli-Sáyan and Sáyan-Kim sections were opened, and that on the Broach-Pálej, Pálej-Miyágám and Kim Broach sections are practically ready for opening. The work of renewing Warren girders by plate girders is well in hand and will probably be completed by June 1899. The administrative offices of the railway at Bombay were practically completed on 1st January 1899. Extensive protective measures have been found necessary for the safety of the Nerbudda Bridge, which it is hoped will be ensured before next rainy season.

Tápti Valley Railway.—The first section of this line from Kankra Khari to Vyára, 35·50 miles, was opened for goods traffic on the 1st December 1898 and for passenger traffic on the 3rd January 1899. The whole length is expected to be open for public traffic by March 1900.

Bhátinda-Ferozepore Standard Gauge Connection.—Work is in progress on this project.

Rajpipla Railway.—Sanction was given in February 1898 to the construction of the second section of this line from Raj Pardi to Nandod, 17·80 miles. The first five miles of the section was ready for opening at the close of the year, and work on the remaining portion is well in hand. The whole line will probably be opened for traffic by June 1899.

Madras Railway.—Construction of the first 26 miles of the Calicut-Cananore Railway and the Arcot-Ranipet line is in progress.

Nílgiri Railway.—The line was opened for goods traffic on the 1st October 1898, and was about to be opened for passenger traffic in November 1898. The district through which the line runs was unfortunately, however, visited by a very severe storm, during which several slips occurred, which caused so much damage that the line will not be ready for opening before March 1899.

Hyderabad-Gódávari Valley Railway.—Platelaying on the northern section will probably be completed to Jalna, mile 109, during February 1899, and the section will be opened to traffic as soon as rolling stock is available.

On the southern section it is expected that before the end of 1899 platelaying will be completed up to Nander, 168 miles from Secunderabad. This, however, depends on the Gódávari bridge, which is likely to be completed in October 1899.

Bengal and North-Western Railway.—On the Tirhoot section, owing to labour difficulties, progress with the Hajeepore-Katihár extension has been backward.

The necessary additions to the existing Segowlie junction station have been completed to admit of the running of the Segowlie-Raxaul Railway trains.

On the Company's section, the line from Mohinpurwa to Katarnian Ghât, 27·08 miles, was opened for traffic on the 25th March 1898, and the Balrámpur-Tulsipur section, 19 miles, on the 1st June 1898. The Gogra bridge at Bahrámghat, named the "Elgin" bridge, was opened on the 24th December 1898. Of the Ganges-Gogra Doab lines, the section from Turtipur to Azamgarh, 51·35 miles, was opened on the 8th June 1898; and the other sections, except the portion from Azamgarh to Sháhganj, are likely to be practically com-

RAILWAYS.

pleted and opened by the end of February 1899. The temporary pile bridge over the Gogra river at Turtipur was opened for material trains from January to June 1898, when it was removed on account of annual floods. It has again been erected and was opened for daylight running of passenger trains in January 1899.

Segowlie-Raxaul Railway.—The first 9 miles of this railway were inspected for opening in May 1898, but as certain necessary works had still to be completed, and in many places the earthwork was soft and new, the opening has been postponed.

Káraikkal-Peralam Railway.—This railway, 14·45 miles, was opened for public traffic on the 14th March 1898, and is being worked by the South Indian Railway Company under a provisional agreement on behalf of the French Government.

Assam-Bengal Railway.—On the Chittagong-Bardapur section, 304·52 miles, the earthquake repairs were completed, and the portions which were closed reopened during the year. Good progress was made with the erection of the head-office buildings, station buildings, and staff quarters at Chittagong. The jetty at Chittagong has also been commenced. The Silchar branch from Badarpur to Káttákhál, 6·27 miles, and from Káttákhál to Silchar, 12·35 miles, was opened for goods traffic on the 13th June and 8th November 1898 respectively.

On the Badarpur-Lumding section, 113·14 miles, earthwork and tunnelling have progressed satisfactorily on all the divisions, the tunnels on the 8th division being practically complete. The girders of the Barak bridge have been erected, and all the bridgework on the 8th division is in hand. The rails are laid up to mile 273¼ from Chittagong and have been laid for 17 miles southwards from Lumding.

On the Badarpur-Makum section (including the Gáuhati branch). 318·10 miles, the earthquake repairs on the Gauháti branch have been completed, and good progress has been made on divisions 16 and 17. Progress on the 15th division is slow, owing to labour difficulties in the dense and unhealthy jungle.

The Gauháti branch from Gauháti to Lanka, 93 miles, a portion of which (from Gauháti to Jamuna Mukh) was closed owing to damages done by the earthquake of 1897, will probably be reopened early in January 1899.

Burma Railways.—The section between Mogaung and Myitkyina, 37 miles. on the Mu Valley extension, was opened for goods traffic in January 1898, and will probably be opened for passenger traffic in February 1899. Work is in hand on the branch lines from Ywataung station, on the Mu Valley Railway, to the town of Alôn and from Meiktila to Myingyan, construction on both of which was sanctioned in August 1898.

On the Mandalay-Kunlon extension, the length from Myohaung to Sèdaw, 13 miles, was opened for traffic on the 1st January 1898. Good progress has been made with the heavy work on the Zibingyi Ghat, and it is expected to open for goods traffic to Maymyo by April 1899. The Gokteik gorge alignment and height of viaduct is now under final consideration, good progress being made on the divisions up to and beyond this point as far as Lashio.

Debru-Sadiya Railway.—The construction of the Borbil bridge has been completed, and the new Dibing bridge is in hand.

Birur-Shimoga Railway.—Works on this line are nearly completed, and it is expected that the line will be opened for traffic early in 1899.

Jodhpore-Bickaneer Railway.—On the Jodhpore section, the construction of the line from Bálotra to the Jodhpore frontier is in progress. Platelaying has been completed up to Barmer, 60 miles from Balotra; and from Barmer to the Jodhpore frontier the line is practically ready for rails.

On the Bickaneer section, the extension from Bickaneer to Dulmera (Khari), 42 miles, was opened for traffic on the 2nd June 1898, and about half the earthwork has been done on the portion from Dulmera (Khari) to Suratgarh.

Shadipalli-Bálotra Railway (*British Section*).—The work on the Hyderabad-Rahoki section, 6·25 miles, has been commenced. On the Shadipalli-Jodhpore Frontier section earthwork is nearly completed. The conversion

of the present Rahoki-Shadipalli section to metre gauge will be undertaken after the construction of the Shadipalli-Jodhpore Frontier section is completed. RAILWAYS.

Oodeypore-Chitor Railway.—The construction of the extension from Debari to Ahr (near Oodeypore) was commenced early in 1898, and was about three-fourths completed at the close of the year.

Jeypore Railway.—This railway from Sánganer to Siwai Mádhopur, 73 miles, was sanctioned in February 1898, and construction is in progress.

Dhrángadhrá Railway.—This line, 21 miles in length, was opened for public traffic on the 26th June 1898, and is being worked by the Bhávnagar-Gondal-Junágad-Porbandar Railway.

Gwalior-Sipri and Gwalior-Bhind Railways.—The formation on both the lines is practically complete; rails have been laid on the former for some 16 miles and on the latter for 28 miles. Both the lines are likely to be opened in 1889.

Cherra-Companyganj State Railway.—The repairs to the damages caused by the earthquake of 1897 and subsequent floods were nearly completed in March 1898, and the line was re-opened for goods traffic from the 8th of the month; but it was again badly damaged by heavy floods and closed from the 28th April 1898. Arrangements were made for repairing the line when it was again badly damaged by subsequent floods which lasted till October 1898. A surface line was opened on the 23rd December 1898 for goods traffic from Komora quarries to Bholáganj, about 4 miles, from which point to Companyganj the line is in good condition. An estimate is under preparation for repairing the damaged line.

The following were the principal events during 1898:—

The maintenance of the Bezwada Extension Railway was taken over by the East Coast State Railway from His Highness the Nizam's Guaranteed State Railways Company, Limited, from the 1st January 1898.

On the 1st January 1898 the working of the Oodeypore-Chitor Railway was taken over by the Oodeypore Durbar from the Bombay, Baroda, and Central India Railway Company.

A memorandum of the revised terms for working the Jammu and Kashmir Railway (Native State Section) was sanctioned by the Government of India in April 1898.

The question of the rearrangement of the Delhi Station to admit of the traffic of the several railways being dealt with at that place was discussed at a meeting of the representatives of the Railways held at Delhi on the 19th April 1898. The matter is still under the consideration of the Government of India.

The Conference of 1898, which met at Simla in August 1898, considered, as before, the recommendations of the several Local Governments and Administrations and Chambers of Commerce in regard to the railways projected. With the view of perfecting railway communication between areas liable to famine and the ports and granaries of the country, the views of Local Governments in regard to the construction of additional famine protective railways were also considered by the Conference.

No new railways were sanctioned during the year under the "branch line terms" resolution of 1896, but negotiations in regard to the following branches are in progress:—

	Miles.
Gogri (Mansi) Bháptiáhi	85
Bhágalpud-Bausir-Baidyanúth	90
Ahmadpur-Baidyanúth	63
Amritsar-Tarn Taran-Sarhali	30
Kurnool Road branch	36
Sábarmati-Dholka	33
Nadiád-Kapadvanj	28
Chandipur-Taki	39

As regards the lines which appeared in the above list in Part I. of the Railway Administration Report for 1897-98, and which do not now appear, it may be stated that negotiations under branch line terms for the construction

RAILWAYS.

of the Jullundur-Hoshiárpur Railway have for the present fallen through. The Madura-Pámban Railway is now to be constructed as an integral part of the South Indian Railway, while the Láksam-Noakhali-Ichakhali and the Bezwada-Masulipatam Railways have been offered for construction at the sole risk of the promoters. The Mutupet-Avadayárkōvil Railway will be built from funds raised by the District Board of Tanjore, and negotiations are in progress for the construction of the Coonoor-Ootacamund extension of the Nílgiri Railway on the basis of a revised contract for the entire line with a guarantee of gross earnings. The contract for the construction of the Kalka-Simla Railway has been executed, but commencement of work has not yet been authorised.

The terms proposed by the Government of India for working a portion of the East Coast State Railway, south of Vizianagram, including the Bezwada-Madras State Railway, by the agency of the Madras Railway Company, not having been accepted by the latter, it has been decided on economical grounds to continue to work the line by State agency until the connection of the East Coast State Railway with Calcutta is established.

The maintenance of the Southern Punjab Railway was taken over by the North Western State Railway on the 1st January 1899.

Guaranteed Railway Transactions.

The transactions of the original guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates :—

	Total Capital Outlay.	Net Revenue.	Guaranteed Interest.	Interest in Excess of Revenue.	Net Revenue in Excess of Interest.	Surplus Profits.
	Half-year ended the 30th June 1898.					
	£.	£.	£.	£.	£.	£.
Great Indian Peninsula	25,667,924	868,136*	594,212	—	273,924	249,771
Bombay, Baroda, and Central India	9,788,922†	493,243	220,397	—	272,846	272,846
Madras	11,185,814	284,902	267,752	—	17,150	15,249
TOTAL £.	46,642,660	1,646,281	1,082,361	—	563,920	537,866
	Half-year ended the 31st December 1898.					
Great Indian Peninsula	25,672,615	361,021	594,212	233,191	—	—
Bombay, Baroda, and Central India	9,984,938†	269,057	223,364	—	45,693	45,693
Madras	11,193,600	202,594	267,752	65,158	—	—
TOTAL £.	46,851,153	832,672	1,085,328	252,656	—	45,693
TOTAL for the Year 1898 £.	46,851,153	2,478,953	2,167,689	—	311,264	583,559
TOTAL for the Year 1897 ‡ £.	46,482,453	2,001,672	2,163,465	161,793	—	191,158

* Including 24,153*l.* paid to Government as rent for the State lines leased to the Great Indian Peninsula Railway Company.
† Excluding the State outlay on the Pátri branch, Rs. 8,08,405.
‡ As corrected from later information.

IRRIGATION.

IRRIGATION.

The nature of the climate and the inequalities of the rainfall will account for the great antiquity of the practice of irrigation in India. Many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination. IRRIGATION.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. In the Madras Presidency alone there are some 60,000 tanks. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works in Madras, the Bombay Deccan, and in Ajmere-Merwara.

In size the tanks vary from the small works formed by earthen embankments thrown across local drainages, often of only two or three square miles in area, to the costly reservoirs constructed by the Imperial Government, such as the Periyar and Rushikulya Works, the reservoirs of which have surface areas of 6,395 acres and 7,900 acres respectively

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the North-Western Provinces, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions, viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Upper Ganges Canal, which has been in operation since 1854, and has cost Rx. 2,994,303, comprises 459 miles of main canal, and 4,297 miles of distributaries, and in the year under review supplied water to 914,022 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost Rx. 3,810,317, and consists of 542 miles of main channels and 4,653 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 506, 372, and 844 miles, and together irrigate upwards of 2,000,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results. The irrigation from them is, however, to some extent precarious. If the annual flood from the melting of the snows of the Himalayas does not sufficiently raise the level of the water in the river, it is impossible to pass the necessary volume of water on to the fields or even to give any water at all to many of them.

The works to which the preceding paragraph applies, in most cases, take off from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in the Bombay Presidency, where irrigation is largely dependent on storage works.

In parts of Biluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "Major" or "Minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to

IRRIGATION.

cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "Minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words "Major" and "Minor" is not in complete correspondence with the facts, as there are some Minor Works which are of more importance than some Major Works. But, speaking generally, the "Major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed, by British officers.

The following statement gives a general view of the results obtained from working the canals, for which full accounts are kept, for 1897-98 and the two previous years:—

	Capital Outlay (Direct and Indirect) to End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.	Rx.	Acres.
Major Works - - -	34,127,336	3,382,685	993,254	2,389,431	7·00	10,245,424
Minor Works - - -	5,296,056	610,762	245,533	365,229	6·89	2,782,882
TOTAL for 1897-98 -	39,423,392	3,993,447	1,238,787	2,754,660	6·99	13,028,306
TOTAL for 1896-97 -	38,660,568	3,613,765	1,261,479	2,352,286	6·08	12,740,545
TOTAL for 1895-96 -	37,474,751	2,706,418	1,155,750	1,550,668	4·1	10,308,990

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the North-West provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the North-Western Provinces and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

The following table gives the mileage of the irrigation canals in operation in each province, with the area irrigated during the year, and the estimated values of the crops raised by means of irrigation from the works :— IRRIGATION.

	Bengal.	North-West Provinces and Oudh.	Punjab.	Madras.	Bombay, including Sind.	Baluchistan.	Rajputana.	TOTAL.
MAJOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Main Canals	700	1,447	1,493	2,061	1,156	Nil.	Nil.	6,857
Distributaries	2,615	9,732	7,569	5,770	332	Nil.	Nil.	26,018
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated	701,638	2,345,486	3,652,478	2,705,915	839,907	Nil.	Nil.	10,245,424
MINOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals	47	—	2,715	1,327	2,074	4	Tank irrigation.	6,167
Distributaries	—	604	812	1,196	228	33		2,873
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated	1,552	167,204	1,153,333	535,813	881,125	5,552	38,303	*2,782,882
	Rx.	Rx.	Rx.	Rx.		Rx.		
Estimated value of crops raised by Major and Minor Works.	2,825,757	8,784,624	14,905,960	9,639,843	543,107	17,401	—	—

* In addition to these figures, 19,131 acres were under irrigation in Upper Burma.

Besides the works to which the preceding paragraphs apply, there is a large class of works, especially in Sind and Madras, for which capital accounts are not kept.

Individually these works are insignificant, but collectively they supply the means of irrigation to a considerable area. In 1896–97, the latest date for which the figures are available, the net revenue from these works amounted to Rx. 730,223, and the area irrigated by them was 4,467,174 acres, or 34·7 per cent. of that irrigated by the major and minor works.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The following statement gives the mileage of canals open to navigation during the year under review :—

PROVINCE.	Irrigation Canals open to Navigation.	Canals designed for Navigation only.	TOTAL.	Number of Passengers Carried.	Estimated Value of Cargoes.
	Miles.	*Miles.*	*Miles.*	*No.*	*Rx.*
Bengal	495	1,339*	1,834	588,518	12,057,183
Punjab	432	—	432	9,830†	—
North-West Provinces and Oudh	535	—	535	1,747	432,886
Madras	990	262	1,252	419,876	5,876,623

* Includes Nuddea rivers and Calcutta and Eastern Canals. † Sirhind Canal only.

IRRIGATION.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

Bengal.

The general results for 1897–98 of working all the irrigation and navigation systems, for which full accounts are kept, are compared with the results of the five previous years in the following statement:—

YEAR.	Capital Outlay to end of Year.	Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
1892–93 - -	7,417,261	259,544	196,152	63,392	0·8	662,930
1893–94 - -	7,474,377	235,964	207,926	28,038	0·3	556,065
1894–95 - -	7,528,530	216,978	200,911	16,067	0·2	509,811
1895–96 - -	7,560,584	205,275	174,744	30,531	0·4	579,933
1896–97 - -	7,612,381	252,651	182,868	69,783	0·9	809,467
1897–98 - -	7,655,603	278,064	182,543	95,521	1·89	703,190

There are in Bengal four canal systems which are classed as Major Works. Three of these combine irrigation with navigation, and the fourth (Hidgellee Tidal Canal) is purely a navigation work.

The financial results obtained from the working of the Major and Minor Works during the year under review are shown in the following statement:—

CANAL.	Capital Outlay to end of Year.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
Major Works:	Rx.	Rx.		Acres.
Orissa Canals - - - -	2,630,212	1,201	·05	195,987
Midnapore - - - -	846,542	3,379	·39	72,206
Tidal Canal - - - -	261,523	5,205	1·99	—
Sone Canals - - - -	2,679,155	63,664	2·38	433,445
Total Major Works - - -	6,417,432	73,449	1·14	701,638
Minor Works:				
Calcutta and Eastern Canal -	639,498	22,480	3·51	—
Orissa Coast Canal - - -	451,746	2,441	—	—
Sarun Project - - - -	70,657	—1,319	—	1,552
Total Minor Works - - -	1,161,901	23,602	2·03	1,552

The Calcutta and Eastern Canals, which are the most profitable of the canal works in Bengal, are navigation works designed to maintain communication between Calcutta and Eastern Bengal, through the Sunderbunds. The Orissa Coast Canal, also a navigation work, forms, with the

Hidgellee Tidal Canal, a complete line of communication between Calcutta and Orissa; and in the event of famine in the latter district would be very useful as a means of importing food. IRRIGATION.

Besides the Minor Works mentioned in the foregoing statement, there are four works of this class for which capital accounts are not kept, viz., the Nuddea rivers system, the Gaighatta and Buxi Khal, and the Eden and Madhuban Canals. The first-named, which comprises about 455 miles of channel, is used for navigation purposes only. The decline of traffic on these rivers unfortunately continues, and was this year aggravated by the unusually low level of the Ganges.

In the following statement the traffic on the canals in Bengal in 1897-98 is shown in comparison with the traffic results of the previous year. The Nuddea rivers are included in this statement:—

YEAR.	Length of Canal open for Navigation.	Receipts.	Maintenance Charges.	Net Receipts.	Estimated Value of Cargoes.	Number of Passengers.
	Miles.	Rx.	Rx.	Rx.	Rx.	
1896-97 - -	1,128	111,952	56,965	54,987	11,576,301	551,295
1897-98 - -	1,834	111,728	50,855	60,873	12,057,183	588,518

The capital expenditure for the year amounted to Rx. 41,852. There was very little capital outlay on the major works. Among the minor works the outlay was chiefly on the Calcutta and Eastern Canals.

In the North-West Provinces, the results of the irrigation operations during 1897-98 were very satisfactory. North-West Provinces.

The rains of 1897 were fairly normal in amount and distribution, but there was a break at the end of June and the first 10 days of July, this combined with high prices of food grains led to the irrigation of a very large number of autumn crops, and in consequence the receipts for the financial year reach an exceptionally high figure.

Taking the revenue actually realised, the general results of the year's working are compared with those of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue to Capital.	Area Irrigated during the Year.
	Rx.	Rx.		Acres.
1892-93 - - - -	8,230,083	424,786	5·16	1,799,846
1893-94 - - - -	8,286,059	439,928	5·31	1,645,197
1894-95 - - - -	8,360,083	428,117	5·12	929,461
1895-96 - - - -	8,491,515	267,987	3·16	2,010,021
1896-97 - - - -	8,655,803	623,778	7·21	3,023,884
1897-98 - - - -	8,794,196	761,590	8·66	2,511,173

Excluding the Betwa Canal, which is a protective work, the major works earned a profit of 9·5 per cent. on their capital outlay. The individual returns from the four works were as under:—

IRRIGATION.

CANAL.	Percentage of Net Revenue (actually realised) on Capital.
Upper Ganges	10·69
Lower Ganges	6·25
Agra	7·67
Eastern Jumna	34·

For the first time since its opening in 1885 the Betwa Canal, the only "protective" work in these provinces, has returned a revenue which is more than sufficient to cover the working charges of the year.

The minor works comprise the Dun, Rohilkhand, and Bijnor Canals, and the Bundelkhand Lakes. The net revenue from these works amounted to Rx. 16,699, which gave a percentage of 6·0 on the capital outlay of Rx. 275,881.

The area irrigated by all the canals was approximately 2,633,569 acres. This is greatly in excess of that for any previous year excepting 1896-97, a year of great drought.

The water was distributed from 40,518 outlets to 11,400 villages. Of the total area irrigated, 871,590 acres were under wheat, 279,512 under indigo, 246,732 under sugar cane, and 185,339 under rice.

The value of the crops irrigated is estimated at $8\frac{3}{4}$ crores, a sum almost exactly equal to the amount of capital invested in canals in these provinces. The average value of the crop per acre is Rs. 35. The average rate paid by the occupiers for the use of the water is Rs. 2·96 per acre, or one-twelfth of the value of the crop.

The capital expenditure of the year amounted to Rx. 138,392. Of this, over 10 lakhs was incurred on the Fatehpur extension of the Lower Ganges Canal, and the balance chiefly on improvements to the head works of the Upper and Lower Ganges Canals, on drainage works, and on the remodelling and extension of distributary channels.

Of the 1,616 miles of main and branch canals of the North-West Provinces and Oudh, 537 miles on the Upper and Lower Ganges, and Agra Canals, were open to navigation during the year.

The navigation operations on the irrigation canals are not profitable. The figures for the last five years are given in the following statement:—

YEAR.	Excess of Working Expenses over Receipts.
	Rx.
1893-94	1,148
1894-95	275
1895-96	127
1896-97	707
1897-98	788

In addition to the area irrigated by the canals under the direct control of the Irrigation Department, there were 122,396 acres irrigated during the year by the Tarái and Bhábar Canals under the Commissioner of Kumaon.

Punjab.

In the Punjab the year was, from the point of view of irrigation, one of remarkable financial prosperity. The famine which had prevailed in some parts of the Province during the previous year was over; but the demand for water continued to be very strong throughout all the earlier Kharif months, and this demand, with the coincidence of unusually favourable river supplies

at the same time, resulted in an unprecedented summer harvest. The late Kharif rains checked the demand on the perennial canals, but the floods at this season were of the greatest service for the inundation series. During the Rabi, the demand was not so strong as in 1896-97—a year of great drought—and the rivers fell rapidly towards the close of the crop when the demand was highest; the spring harvest was nevertheless a very large one. These circumstances of the year, especially the exceptionally favourable early summer conditions, combined with recent extensions of old, and development of new, canal systems resulted in an irrigated area of nearly five-and-a-quarter millions of acres, and revenue assessments of over one-and-a-half crores of rupees.

The general results of the year's operations for all works are shown in the following table in comparison with the records of the four previous years:—

Year.	Capital Outlay to end of Year.	Area Irrigated.*	Assessed Revenue.*
	Rx.	Acres.	Rx.
1893-94	7,555,941	2,725,209	729,558
1894-95	7,858,628	2,781,663	770,084
1895-96	8,203,560	3,458,544	1,105,875
1896-97	8,617,852	4,164,920	1,358,968
1897-98	8,935,333	4,805,811	1,506,850

* Includes Muzaffargarh Canals.

The above figures are exclusive of the Native States portion of the Sirhind Canal and Sirsa branch.

Taking the actual revenue collected during the year, the following table compares the individual results obtained from all the works for which full accounts are kept:—

Canals.	Length of		Capital Outlay to end of Year.	Net Revenue collected in Year.	Percentage of Net Revenue on Capital Outlay.
	Main and Branch Channels.	Distributaries.			
Major Works:	Miles.	Miles.	Rx.	Rx.	
Perennial Canals:					
Swat River	22	182	399,739	29,492	7·38
Western Jumna (including Sirsa Branch).	401	2,193	1,619,949	167,573	10·34
Bari Doab	353	1,167	1,808,890	247,101	13·66
Sirhind (British portion)	319	2,714	2,415,994	261,579	10·83
Chenab	272	1,373	2,269,347	166,563	7·34
Sidhnai	63	117	116,441	23,671	20·33
Jhelum	—	—	20,428	—	—
Inundation Canals:					
Lower Sohag and Para	98	48	71,625	4,240	5·92
Minor Works:					
Upper Sutlej	216	182	82,802	9,528	11·51
Lower Sutlej and Chenab	797	19	12,173	20,765	170·58
Indus	703	—	70,763	18,237	25·77
Shahpur (Imperial)	79	94	21,188	4,164	19·65
Total	3,323	8,089	8,909,339	952,913	10·70

IRRIGATION.

On the Native States branches of the Sirhind Canal the area irrigated was 345,431 acres against 394,291 acres in the preceding year.

The estimated value of the crops raised on land irrigated by the Imperial canals (including the branches in Native States) was Rx. 14,905,960, giving a rate of Rx. 3·31 per acre. The principal crop was, as usual, wheat, of which there were 1,723,140 acres under irrigation.

The capital outlay on Imperial works for the year amounted to Rx. 317,482, of which Rx. 226,233 was expended upon the Chenab Canal. This canal is now approaching completion. On the Western Jumna Canal there was an expenditure of Rx. 42,299.

On the Jhelum and Ghaggar Canals, which were started during the previous year as famine relief works, Rx. 9,636 and Rx. 11,608 respectively were expended during the year.

The navigation operations on the Western Jumna and Sirhind Canals resulted in a profit of Rx. 4,990. The profit realised on the Western Jumna Canal was Rx. 4,923. The Sirhind Canal yielded a profit for the first time of Rx. 67.

The following figures show the rapid development of irrigation since the Chenab Canal was first opened in 1892-93, when 157,197 acres were irrigated :—

Year.	Capital Outlay to end of Year.	Area Irrigated during the Year.	Net Revenue during the Year.	Return on Capital Outlay.
	Rx.	Acres.	Rx.	Per Cent.
1892-93 - - - -	1,081,860	157,197	— 6,127	— 0·57
1893-94 - - - -	1.317,051	270,405	5,328	0·40
1894-95 - - - -	1,492,518	269,357	14,267	0·96
1895-96 - - - -	1,762,172	369,935	77,448	4·40
1896-97 - - - -	2,043,113	520,279	137,944	6·75
1897-98 - - - -	2,269,374	810,000	166,562	7·34

This rapid development of irrigation has occurred in a tract the greater part of which was absolutely unpopulated in 1892, but this has all been changed by the highly successful operations by which colonies of settlers have been established in these crown wastes *pari passu* with the construction of the Canal.

Burma.

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works, and navigation channels.

In Upper Burma there is only one major irrigation work, namely, the Mandalay Canal, which was sanctioned in 1896. The project provides for a canal to take off from the Madaya river, 39 miles long, with 86 miles of distributaries, and is expected to irrigate 72,000 acres of land. The total capital outlay on the Mandalay Canal amounted at the end of 1897-98 to Rx. 66,553.

Much was done in improving and maintaining existing minor irrigation works in the Meiktila, Yamethin, Myingyan, and Kyaukse districts. The canals in the Kyaukse district are the most important. The restoring of the Kanna Tank, an old Burman work, was taken up as a relief work. It is being completed as an ordinary work, and is estimated to cost Rx. 268,046.

AJMERE-MERWARA.

The irrigation in Ajmere-Merwara is from tanks, none of which are classed as major works.

The rainfall of the year was below the average, and the tanks were consequently not sufficiently filled. The results for the present and preceding years are compared in the following statement:— IRRIGATION.

Year.	Capital Outlay.	Revenue Collected.	Working Expenses.	Net Revenue.	Percentage of Net Revenue on Capital.
	Rx.	Rx.	Rx.	Rx.	Rx.
1896-97 - - -	245,228	13,330	4,853	8,477	3·45
1897-98 - - -	245,522	12,840	5,334	7,505	3·06

The revenue is derived partly from water rates directly paid, but chiefly from a share in the land revenue, including a well assessment, credit being given to the tanks for their effect in raising the level of the water in the neighbouring wells.

The area irrigated or protected by the tanks was 38,321 acres, and the value of the crops raised during the year is estimated at Rx. 66,084.

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department. Madras.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snows on distant mountain ranges.

In the year under review the rainfall was more abundant than in the preceding year, and the season was on the whole favourable.

There are at present 10 "major" works and 26 "minor" works, for which Capital and Revenue Accounts are kept; and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 26 minor works for which full accounts are kept, 22 are irrigation systems, and four are tidal canals intended for purely navigation purposes.

Of the works for which full accounts are kept the length of completed main canal was 3,693 miles, and of distributary channels 6,966 miles. The area irrigated during the year by these works was 3,150,007 acres, the crops grown being valued at Rx. 9,639,843.

Taking all the works for which full accounts are kept, the general results of the year's working compared with those of the four previous years will be seen from the following statement:—

Year.	Capital Outlay.	Area Irrigated.	Net Actual Revenue.	Percentage of Net Revenue on Capital.
	Rx.	Acres.	Rx.	
1893-94 - - - -	8,084,636	2,838,427	515,896	6·3
1894-95 - - - -	8,307,160	2,886,483	520,058	6·2
1895-96 - - - -	8,534,471	2,940,317	547,137	6·4
1896-97 - - - -	8,723,253	3,129,859	535,352	6·1
1897-98 - - - -	8,879,507	3,241,728	632,403	7·1

IRRIGATION.

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be Rx. 1,099,217.

The results of the year's working for the major works in operation are shown by the following figures:—

Work.	Area Irrigated.	Capital Outlay.	Net Revenue.	Percentage of Net Revenue on Capital.
	Acres.	Rx.	Rx.	
Godaveri Delta	804,999	1,297,807	248,516	19·15
Kistna Delta	518,459	1,319,166	173,827	13·18
Pennér Anicut	67,448	189,919	14,422	7·59
Sangam Anicut	72,634	385,600	14,190	3·68
Kurnool-Cuddapah Canal	46,004	2,171,773	3,217	0·15
Barur Tank	3,619	42,594	592	1·39
Cauvery Delta	954,519	999457	89,488	44·87
Srivaikuntham Anicut	38,077	147,192	8,019	5·45
Periyar Project	85,144	852,913	2,331	0·27
Rushikulya (Protective Work)	69,286	464,442	2,521	0·54
TOTAL	2,660,189	7,070,773	557,123	7·88

The minor works irrigated an area of 535,813 acres, and earned a net revenue of Rx. 75,277, equivalent to a percentage of 4·16 on the capital expended on them. The purely navigation works, with the exception of the Buckingham Canal, were in each case worked at a small loss.

Besides the works referred to in the foregoing paragraphs, there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The net revenue derived from these works in 1896-97 was Rx. 636,880, and the area irrigated by them was 3,131,009 acres. A plan for the systematic repair of some of these works has now been in progress for some years, under the title of the "Tank Restoration Scheme." Up to the end of the year an expenditure of 55 lakhs had been incurred under this scheme, 36,014 square miles had been investigated, and estimates for 5,158 works had been prepared.

The capital expenditure for the year on the major works amounted to Rx. 94,157. This expenditure was incurred chiefly on the Kistna, Cauvery, Periyár, and Rushikulya works. On the latter project over Rs. 46 lakhs has now been expended, against an estimate of Rs. 47,56,000.

Bombay, excluding Sind.

There are 36 irrigation works in operation in the Bombay Presidency, of which nine are classed as Major Works. The canals in this Presidency are generally small, and the water being, in most cases, drawn from small rivers and local streams, more or less dependent on rainfall, a constant supply cannot be maintained without the aid of storage reservoirs. In fact, the reservoir projects, of which there are 27, include the more important works, such as the Bhátghar reservoir, the Lake Fife Works, and the Mhasvad and Ekruk tanks.

The area irrigated in 1897-98 showed an increase over the area irrigated in the previous year. The increase was distributed over nearly all the canals, but occurred chiefly on the Nira and Mutha canals. The total area irrigated by the Nira Canal was the largest that has yet been irrigated in any one year.

A comparative statement of the results from those works, for which full accounts are kept, for 1897-98, and the preceding four years, is given in the following table:— IRRIGATION.

YEAR.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	Rx.	Acres.	Rx.	Rx.	Rx.
1893-94 - - -	2,574,279	79,950	57,374	28,741	28,633
1894-95 - - -	2,611,751	84,237	56,348	35,092	21,256
1895-96 - - -	2,626,124	74,923	59,883	29,429	30,454
1896-97 - - -	2,635,987	118,004	55,839	35,994	19,845
1897-98 - - -	2,658,104	126,516	63,580	40,389	23,191

The net revenue realised for the year represents a return of 0·87 on the capital expenditure, as compared with 0·75 in the preceding year. The major works in operation produced a net revenue equivalent to 1·03 per cent. on the capital of Rx. 1,895,406 expended on them.

The most important of the major works, judged by the amount of capital expenditure, is the Mutha Canal system with the Lake Fife Reservoir, which an 1897-98 irrigated an area of 12,691 acres, besides supplying the cantonment and civil station of Poona with water. The total expenditure on this work is Rx. 660,098, and in the year under review the net revenue was equivalent to a return of 2·34 on the capital outlay. The most remunerative work in the "major" class was the Krishna Canal, which produced a return of net revenue equivalent to 5·24 per cent. on the capital expenditure. The works known as the Nira Canal and Bhátghar Reservoir, which are classed as protective, are estimated to cost Rx. 610,443 when complete, and will be capable of irrigating 56,640 acres. The return on capital outlay yielded by these works in 1897-98 was 1·30 per cent.

The minor works, for which full accounts are kept, earned a net revenue during the year of Rx. 3,706, equivalent to a return of 0·35 on the capital outlay.

The capital outlay during the year on all works amounted to Rx. 22,117, which was incurred principally on the Stretphal, Chankapur, and Maladevi Tanks.

The total value of the crops irrigated is estimated at Rx. 543,107, against Rx. 916,058 in the previous year.

In the minor class of works, for which distinct capital and revenue accounts are not kept, the expenditure for the year amounted to Rx. 17,501, and the revenue realised was Rx. 56,479, giving a net revenue of Rx. 38,978. The area irrigated by the works of this class was 146,767 acres.

In Sind the success of the irrigation operations is dependent upon the regular rise of the River Indus. The inundation of 1897 was an exceptionally favourable one, and was the highest on record; but the river and other bunds, which had been put up after the high inundation of 1894, proved of great service in controlling the flood waters, and these, with the prompt measures taken by the engineers, minimised the effect of the flood, which would otherwise have probably been disastrous. Sind.

IRRIGATION.

Taking the works for which full accounts are kept, the general results for 1897–98 and the four preceding years are shown in the following statement:—

YEAR.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.	Area Irrigated.
	Rx.	Rx.		Acres.
1893–94 - - -	1,293,990	145,466	11·2	1,366,193
1894–95 - - - -	1,358,654	142,486	10·5	1,449,784
1895–96 - - - -	1,456,704	97,712	6·7	1,205,038
1896–97 - - - -	1,627,643	156,626	9·6	1,435,740
1897–98 - - - -	1,805,111	195,691	10·8	1,593,252

In Sind the existence of cultivation depends upon irrigation, and there is a constant demand for the canal water. This fact, and the comparatively inexpensive nature of inundation canals, will account for the favourable financial results obtained from the works.

There are four "major" works in operation in Sind, viz., the Desert, Unharwah, and Begari Canals, and the Eastern Nara Works. These four works earned profits at the respective rates of 6·30, 17·47, 17·78, and 7·18 on the sums expended on their construction.

The capital expenditure of the year was incurred chiefly on the Jamrao Canal. There was also expenditure on the Dad Canal and Eastern Nara Works, and, among minor works, on the Fuleli Canal.

Baluchistan.

There are no "major" works in Baluchistan. The class of "minor" works is represented by two schemes now in operation, viz., the Shebo Canal, and the Khushdil Khan Reservoir, the former of which has cost Rx. 67,723, and the latter Rx. 93,555.

In the year under review the net revenue from the Shebo Canal was Rx. 1,352, or 2·0 per cent. on the capital outlay.

The net revenue from the Khushdil Khan Reservoir was Rx. 1,455, or 1·56 on the capital expenditure.

The area irrigated by these two works was 5,552 acres, as compared with 3,355 acres in the preceding year. The value of the crops raised was Rx. 17,401.

BUILDINGS AND ROADS.

BUILDINGS AND ROADS.

The buildings and roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including light-houses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., Military and Civil Works. The military works are executed entirely from Imperial funds.

The expenditure on Civil Works is chiefly met from provincial and local resources. The classification of the expenditure for 1897–98 under the heads referred to is shown in the following table:— BUILDINGS AND ROADS.

	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	GRAND TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Military Works - - -	1,059,540	- -	- -	1,059,540	69,633	39,212	1,168,385
Civil Works - - - -	302,120	2,258,018	1,564,010	4,124,148	80,866	45,537	4,250,551
TOTAL, 1897–98 - -	1,361,660	2,258,018	1,564,010	5,183,688	150,499	84,749	5,418,936
TOTAL, 1896–97 - -	1,773,573	2,131,781	1,685,125	5,590,479	116,096	76,720	5,783,295
TOTAL, 1895–96 - -	1,762,936	2,063,159	1,777,957	5,604,052	117,322	89,138	5,810,512

This statement does not include the outlay from imperial revenues recorded under the head of Special Defence Works, which amounted to Rx. 101,349 in 1895–96, Rx. 94,610 in 1896–97, and Rx. 23,708 in 1897–98.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

MILITARY WORKS.

The total expenditure on Military Works, ordinary and special, amounted to Rx. 1,193,589 in 1897–98, against Rx. 1,254,587 in 1896–97. The cost of Special Defence Works amounted to Rx. 25,204, against Rx. 97,581 in the previous year. MILITARY WORKS.

The expenditure of Rx. 1,168,385 on ordinary military works included an outlay of Rx. 430,561 on new works, of Rx. 346,261 on repairs, and of Rx. 291,477 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and Native troops cost about Rx. 200,000, while General Cantonment Works figured at Rx. 91,314.

The expenditure on Special Defence Works was altogether for armaments of coast defences at Aden and Bombay.

The total amount expended on Special Defence Works up to the close of 1897–98 (exclusive of contributions from imperial revenues) was Rx. 4,577,972. These works are now almost complete.

CIVIL WORKS.

CIVIL WORKS.

The following statement shows the distribution of the total outlay in India on Civil Works among the different provinces:—

EXPENDITURE in *India* on CIVIL WORKS in 1897–98.

	India, General and Political.	Bengal.	North-West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Expenditure by Public Works Department:										
Civil Buildings - - - -	34,423	215,484	120,919	89,129	193,990	28,614	62,672	78,426	110,757	934,414
Communications - - -	41,951	70,116	186,078	155,589	206,383	78,374	193,347	25,959	165,825	1,123,572
Miscellaneous Public Improvements.	57,592	7,527	10,482	11,409	21,706	3,543	9,751	7,589	14,370	143,269
TOTAL Works and Repairs -	133,966	293,127	317,479	256,127	421,329	110,531	265,770	111,974	290,952	2,201,255
Establishment - - - -	27,058	82,205	127,697	81,328	121,782	47,436	51,070	53,292	95,649	687,517
Tools and Plant - - -	1,402	3,144	916	5,076	5,762	560	3,716	17,667	4,088	42,331
Profit and Loss, Suspense, &c. -	—6,790	—4,354	—11,324	—3,145	412	—353	6,702	4,482	—1,085	—15,455
TOTAL Expenditure by Public Works Department - -	155,636	374,122	434,768	339,386	549,285	158,174	327,258	187,415	389,604	2,915,648
Expenditure by Civil Department -	8,600	421,187	76,648	23,108	68,389	13,305	11,301	460,981	124,981	1,208,500
TOTAL Expenditure in India -	164,236	795,309	511,416	362,494	617,674	171,479	338,559	648,396	514,585	4,124,148

The greater part of the outlay by the Civil Department, shown in the foregoing statement, was expended upon communications. The following abstract shows the total sums expended in India, by both the Public Works Department and the Civil Department, under the three heads of Buildings, Roads, and Miscellaneous Public Improvements. As in the previous statement, military works are not included :— CIVIL WORKS.

	By Public Works Department.	By Civil Department.	TOTAL.
	Rx.	Rx.	Rx.
Civil Buildings	934,414	103,913	1,038,327
Communications	1,123,572	708,907	1,832,479
Miscellaneous Works	143,269	136,582	279,851,
TOTAL Works and Repairs	2,201,255	949,402	3,150,657
Establishment	687,517	192,489	880,006
Tools and Plant	42,331	9,288	51,619
Profit and Loss, Suspense, &c.	−15,455	57,321	41,866
TOTAL	2,915,648	1,208,500	4,124,148

The expenditure in England consists to a great extent of furlough and absentee pay and allowances of military and civil officers of the Public Works Department. It also includes the expenses of the Royal Indian Engineering College at Cooper's Hill, which amounted in 1897–98 to 26,157*l.* The revenue of this institution for the year was 28,911*l.*

The following more detailed account of the operations of this branch of the Public Works Department for the year under review is given under the heads of the different provinces in which the expenditure was incurred.

In Bengal the expenditure for the year on civil works was as follows :— BENGAL.

	Rx.
Imperial—Civil	62,451
Provincial	321,951
Local	410,907
TOTAL	795,309

The building in Koilaghat Street, Calcutta, for the office of the Comptroller of the Post Office, was nearly completed during the year, at a cost of Rx. 46,155.

The greater part of the expenditure from provincial funds was upon the construction and repair of buildings; the maintenance of the road system in Bengal being very largely in the hands of the district boards.

Among collectorate offices may be mentioned the provision of additional accommodation at Patna. The reconstruction of the Deputy Commissioner's cutcherry at Darjeeling, which had been destroyed by fire, was completed during the year.

The extensions of the central jails at Bhagulpur and Buxar made good progress, and the construction of surface drains in the Burdwan Jail was taken in hand, and a scheme for improving the drainage of the jail at Dumka was sanctioned.

CIVIL WORKS.

There was considerable expenditure under the heads of Colleges and Hospitals. The chemical laboratory in the Medical College, Calcutta, was in progress, and the improvements to the physical laboratory of the Presidency College, with the exception of the steel dome for the observatory, were completed.

The reconstruction of the Presidency General Hospital, at a cost of 22 lakhs, was commenced. Extensions to the Campbell Hospital, Sealdah, were in progress, and the improvements in the dispensary building of the Medical College Hospital were completed.

The new secretariat building at Darjeeling was completed, with the exception of some petty works, and the enlargement of St. Andrew's Church at the same station was likewise completed.

The total length of road communication in Bengal maintained by public authorities during 1897–98 was :—

	Metalled Road.	Unmetalled Road.	TOTAL.
	Miles.	Miles.	Miles.
Maintained by Public Works Department -	1,214	519	1,733
„ Local Authorities - - -	3,279	33,454	36,733
TOTAL - - -	4,493	33,973	38,466

In view of the preparation of a well-considered programme of road extension and improvement, detailed schemes have been called for from the various districts, and most of them have been received.

Famine relief works on an extensive scale were taken in hand by the Public Works Department in North Behar and elsewhere. During the year five feeder roads to the Eastern Bengal Railway were put in hand as famine relief works in the Nadia district.

North-West Provinces and Oudh.

The expenditure on buildings and roads in the North-West Provinces and Oudh for 1897–98 was smaller than in the two previous years.

The outlay under the different heads of service was as follows :—

	Rx.
Imperial—Civil - - - - - -	13,257
Provincial - - - - - - - -	295,002
Local - - - - - - - - -	203,157
TOTAL - - -	511,416

During the year the building for a bacteriological laboratory at Mukhtesar was completed, with the exception of certain additional works required in connection with the laboratory. The works at Naini Tal, which include the erection of a new Government House on the site formerly occupied by the Diocesan Boys' School, and the building of a new school on another site were well advanced.

The year was characterized by abnormal floods in the Naini Tal and Almora districts of the Kumaun Division, which caused enormous damage to the roads

and bridges in the outer range of hills. The cost of repairing these damages to the roads and bridges under the control of the Public Works Department is estimated at Rs. 198,440. CIVIL WORKS.

In the Punjab the expenditure was considerably smaller than in the preceding year. The outlay on civil works was as follows:— PUNJAB.

	Rx.
Imperial	40,777
Provincial	233,803
Local	87,914
Total	362,494

The Public Works establishments maintained by the district boards and municipalities are distinct from the Provincial Government staff. Efforts are being made towards unification of these different establishments, economy sometimes resulting from the employment of district board officers to carry out provincial works, and *vice versâ*, of officers of the provincial establishment to supervise or carry out works executed from district or municipal funds. In pursuance of this policy various buildings and roads were this year transferred from the control of the Public Works Department to local boards or municipalities, or *vice versâ*, to the Public Works Department.

The most important works under the head of Imperial were the construction of civil buildings at Para Chenar, re-roofing the militia lines at Para Chenar; reconstructing the Imperial Public Works Secretariat buildings at Simla; and a new serai for civil offices at Wana.

The provincial works included the construction of tahsils at Khangah, Dogran, and Lyallpur; a bridge over the Bungril nullah, mile 10, Rawalpindi-Murree Road; improving the Charsadda and Murdan Road; metalling and improving Moga Bhagapurana Road; rebuilding the spans of the Lyall Viaduct washed away in 1896; metalling and improving the roads from Amritsar to Ajnala and Multan to Bunderghat; and additional defence works at Dera Ghazi Khan.

The district works included metalling the Jagraon-Bassian Road and constructing the Sarsuti Canal and the Kaithal Rajbaha. The more important works carried out from municipal funds were, new schoolhouse at Kaithal; a town hall at Hoshiarpur; Delhi intramural drainage scheme, Part II.; additional reservoir at the Charot nullah pumps, Simla water works, drains in the town of Faridabad; and a water supply to the town of Pind Dadan Khan.

Under the head of Famine Relief the most important works in hand were the raising of the road from Phalia to Ramnal, and constructing the Kaithal branch extension of the Sarsuti Canal.

The comparative expenditure on civil buildings and communications was as follows:—

	Original Works.	Repairs.	TOTAL.
	Rx.	Rx.	Rx.
Civil Buildings	48,167	40,961	89,128
Communications	30,208	125,379	155,587

CIVIL WORKS.

Excluding station roads, the total road mileage at the end of the year was 25,986 miles, viz., 2,283¼ miles metalled, and 23,702¾ unmetalled. Boat bridges and ferries were maintained at various points on the Indus and its tributaries. At Dera Ismail Khan and Dera Ghazi Khan steam ferry services are worked in connection with the North-West Railway. The capital cost of all boat bridges and major ferries amounted to Rx. 54,993, and the cost of maintenance during the year was Rx. 15,101.

Burma.

Only one administration report for the Public Works Department has been prepared for 1897–98, instead of separate reports for Upper and Lower Burma as hitherto, and the funds in Upper Burma have been provincialized with effect from 1st April 1897.

The total expediture for the year was Rx. 562,989.

No large civil buildings were undertaken during the year, but various new court houses and record rooms were either completed or commenced, and the large extensions of the Bassein and Toungoo jails were well advanced. Prome jail is also being extended and the necessary works were commenced during the year.

The wants of other departments also received attention, but no works of any unusual importance were undertaken.

The total length of roads maintained by the Public Works Department at the end of 1897–98 was 6,021·67 miles. New roads to the extent of 102 miles were opened out. Other roads were completed by building bridges where required, or by improving them to meet increasing traffic.

There was considerable expenditure on navigation works. Improvements to the Pegu-Sittang and Sittang-Kyaikto canals were in hand, and the connection of the Kyaikto-Bilin canal with the old boat track to the Thabyu by means of a boat cutting was completed, and a temporary well constructed at Ayethama.

The outlay on famine relief works was Rx. 58,456, which was almost entirely spent on the Meiktila-Myingyan Branch Railway.

Central Provinces.

The cost of works undertaken for the purpose of affording famine relief, which amounted to over 91 lakhs, largely increased the expenditure in the Central Provinces from imperial funds during the year under review.

The amount of the normal expenditure for the year was :—

	Rx.
Imperial	1,325
Provincial	150,718
Local	19,436
TOTAL	171,479

Outside of the famine relief operations there was no outlay from imperial funds on civil works of any importance.

The provincial buildings under construction were of the usual kind required for the different branches of the administration, such as tahsils, godowns, court houses, jails, police quarters, educational buildings, &c.

The famine relief works helped to swell the amount of roads under construction or improvement during the year. Many important roads were in hand, and surveys were carried out for further extensions amounting to 114½ miles.

The total length of roads maintained in the province during the year from public funds was :—

	Miles.
Metalled roads	1,428⅛
Unmetalled roads	5,117⅞
TOTAL	6,545⅞

The important water-supply schemes, the cost of which is met from local loans, at Khandwa and Wardha, have been completed. CIVIL WORKS

There are two collieries managed by the Provincial Administration, viz., at Warora, in the Chanda District, and at Umaria, in the Rewah State. The total output from the Warora Mines was 115,682 tons, against 113,454¾ tons in the previous year, showing an increase of 2,227¼ tons. The net profit from the working of the colliery was Rx. 14,287, or 7·70 per cent. on the total capital outlay. The working of the Umaria Colliery resulted in a profit of Rx. 783, or 0·66 per cent. on the capital outlay. The output from this colliery was 119,200 tons, against 116,571 tons in 1896–97.

The total expenditure in Assam for the year was as follows :— Assam.

	Rx.
Imperial—Civil	18,899
Provincial	247,469
Local	72,191
TOTAL	338,559

The expenditure on public works in Assam is mainly devoted to the maintenance and improvement of the road system, the outlay on buildings being comparatively small.

Compared with the previous year, the expenditure under Provincial shows a large increase. This was owing to the earthquake of June 1897, which destroyed nearly every masonry building in the Sylhet, Khasi, and Jantia Hills, Garo Hills, and Lower Assam Divisions, and severely damaged the roads, which in many places were rendered impassable.

The expenditure in Madras was as follows :— Madras.

	Rx.
Imperial	4,920
Provincial	212,389
Local	431,087
TOTAL	648,396

In the classes of buildings and roads there were no imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local Civil Works.

The new Law College in Madras is now completed, and also the Connemara Library and connected buildings. The tower, which was condemned, has been demolished, and the carriage porch and covered ways to take its place have been put in hand.

In the districts the buildings under construction were of the usual type of taluk offices and cutcherries, court houses, and other buildings required by the different branches of the Administration. The outlay up to date on the public offices at Tanjore has been Rx. 10,200 ; a revised design for the tower is under preparation. Good progress was made with the extension of the Normal and Unions Schools at Rajahmundry.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department, and there was some expenditure during the year on the maintenance and improvement of the Ootacamund-Kullar and Chundale-Mysore roads. The greater portion of the road system in Madras is, however, in the hands of the local boards, whose expenditure is not under the control of the Public Works Department. They maintain their own engineering establishments, though in some cases they employ the agency of

CIVIL WORKS.

the Public Works Department for particular works. In the year under review 22,681 miles were maintained.

An important feature in the Public Works of the Madras Presidency, owing to the length of its coast line, is the maintenance of its harbours and light-houses.

Progress was made with the extension of the Northern and Southern jetties at Cocanada, and the works in connection with the new pier and reclamation of the foreshore at Tuticorin were completed.

In the districts of Bellary, Cuddapah, and Kurnool there was considerable distress from the failure of the crops. During 1897–98 the situation became grave, and the ordinary operations of the department were brought almost to a standstill, in order that the majority of the staff might be employed on famine relief works. The officers in charge of divisions and subdivisions were all employed in inspecting and organising famine works.

At the close of the official year 1896–97 there were 71,750 persons on relief works throughout the circle. The number gradually rose till it reached the total of 478,160 in July 1897. It then commenced to fall week by week, and by the middle of November the coolies had all left the works.

The following statement shows the number of works started in each district and the number of labourers employed on them:—

Division.	Number of Relief Works.	Number of Relief Workers.	Remarks.
Bellary	29	155,854	Most of these were road works, there being very little work available under irrigation.
Anantapur	42	62,027	
Kurnool	43	162,095	
Cuddapah	29	98,184	
TOTAL	143	478,160	

BOMBAY.

The expenditure on civil works in the Buildings and Roads Branch in the Bombay Presidency for 1896–97 was as follows:—

	Rx.
Imperial	12,892
Provincial	268,464
Local	233,229
TOTAL	514,585

The whole of the imperial expenditure was devoted to civil buildings. No new work of importance was undertaken during the year, the greater part of the outlay being spent in constructing offices and residential quarters for subordinate officers of the Salt, Customs, Post Office, and Telegraph Departments. On the Somáli coast the construction of a residency and court-house was still in progress, the police lines were improved, and several minor works carried out.

The expenditure from provincial and local funds under the head of Civil Buildings included the construction or improvement of a number of mamlatdar's offices, record rooms, bungalows, and distilleries.

The construction of a Rájasthanik hall at Sádra was practically completed.

As in previous years, buildings and remains of archæological interest were kept in repair. Several high schools were completed during the year, and the construction of a campanile for the Church of the Holy Name at Poona was completed.

The total outlay on communications during the year was about 21 lakhs of rupees. The total mileage of road extension and improvements carried out

by Public Works Agency was about 239 miles. The planting and preservation of roadside trees continued to receive careful attention. CIVIL WORKS.

Under miscellaneous public improvements, the Surat and Ránder water supply works were practically completed, with the exception of the Ránder portion. Substantial progress was made with drainage and sewerage works. Under this head the works on the Chanpáti estate at Bombay, and at Nadiad, Násik, and Ahmedabad may be mentioned. The works for protecting the city of Surat from the Tapti river floods were finally completed at a total cost of Rx. 17,545.

The expenditure on public works in the Hyderabad Assigned Districts was as follows:—

	Rx.
Imperial - - - - - - - - -	1,391
Provincial - - - - - - - - -	94,836
Local - - - - - - - - - -	30,386
TOTAL - - -	126,613

The greater part of the year's outlay was upon the extension and repair of the road system. Considerable expenditure was incurred on tree planting on roadsides.

The length of roads maintained by the Provincial Public Works Department was 1,041½ miles.

In Coorg there were no works in progress of sufficient importance to call for individual notice. The expenditure for the year on civil works amounted to Rx. 16,048. Coorg.

The length of road maintained by the Public Works Department was 178 miles from imperial funds, and 119 miles from local funds.

NATIVE STATES.

A full account of the public works in the districts under Native administration in India cannot be given, owing to the want of information in the case of some of the States. In the minor States the works are for the most part insignificant, but in the larger States there are works of importance, and some of considerable size, in many cases carried out by European engineers lent by the British Government. NATIVE STATES.

The total expenditure by the Public Works Department of the Central India Agency in 1897–98 amounted to Rx. 26,357, the greater part of which was upon the extension and maintenance of roads. The total length of road communication maintained by the Department was 780 miles. Central India.

The operations of the Public Works Department in the Agency have been much reduced by the transfer to the chief Native States of the care of the metalled roads in their territories, which has been noticed in previous years' Reports. The duties of the Public Works Department lie not only in maintaining important lines of communication, such as the Agra and Bombay, Nimach and Mhow, and Nowgong and Sutna roads, and in designing and executing projects within territories which are too intermixed or too impoverished to be treated on the footing of the larger States, but also in advising the States that are capable of executing their own projects as to the direction in which their efforts may be most usefully exerted, and in inspecting the work done by the larger States on behalf of the Imperial Government.

Railways form the chief feature in the Native public works, and there is a growing tendency among the rulers of Native States to promote railway extensions within their borders. The Guna-Bina, Ujjain-Bhopal, and Ujjain-

NATIVE STATES. Nagda lines are now complete, and good progress has been made on the Guna-Bara extension, and also on the line on the 2-feet gauge from Gwalior to Sipri.

About 864 miles of metalled road were maintained.

Rajputana. The total outlay in 1897-98 on public works in Rajputana was Rx. 564,370, of which Rx. 531,039 was incurred in the Native States. The expenditure was larger than in the previous year, and the increase is mainly due to the large expenditure on the Shadipalli-Balotra metre-gauge line, Jodhpore section.

The metre-gauge line from Bikanir northwards is practically complete for 41·67 miles as far as Khari. Work is in progress for the nine miles beyond Khari to Lankaransar, and surveys northwards towards Bhatinda are in hand.

The metre-gauge line between Sanganer on the Rajputana-Malwa Railway and Siwai-Madhopore, 73 miles in length, in the Jeypore State, has been sanctioned by the Secretary of State, and work has been commenced.

From 1st January 1898 the Meywar Darbar took over the management of their line, Chittorgurh to Debari, from the Bombay, Baroda, and Central India Railway Company, and are now working it by their own railway engineer. The extension of the line on the same gauge (metre) to Oodeypore has been staked out, and work is in good progress, with the hope that it will be open for traffic before the end of the year 1898.

Considerable progress has been made on irrigation works, notably in Jeypore (the Ramgarh project), in Bikanir (the Ghaggar Canal scheme), and in Bhurtpore (Bareta Bund and Banganga River Channel). Major irrigation works in the Marwar State have been temporarily deferred owing to the heavy expenditure on railways.

The complete contruction within the year of the Ghaggar Canal scheme, comprising dam and head-works, and also canals on both banks in British and Bikanir territory, is a matter for great satisfaction. The works were ready in working order before the rains of 1897, and have been well tested by the water-supply of a normal year of rain-fall. Water was freely available throughout the entire length of the canals, but the bulk of it was unavoidably sent down the bed of the Ghaggar, as preparations are not yet complete for utilising all the water from the canals.

The works have been completed at the estimated cost and in a most satisfactory manner. The problem of partitioning the water between British and Bikanir land has been solved. Water may now be considered as laid on to Bikanir, and only awaits the development of a suitable irrigation system to be fully utilised to the benefit of the State.

Coal of a useful kind has been discovered in the Bikanir State, and the sanction of the Government of India has been asked for to the employment of a mining engineer who will locate the coal-field and determine the value of the coal.

The total length of roads maintained by the Native States in Rajputana during 1897-98 was 1,663 miles, in addition to about 722 miles maintained by the Imperial Government.

Madras. In the Native States under the control of the Madras Government there was no event of importance to notice during the year in connection with public works.

In Travancore the total expenditure was Rx. 112,071, of which Rx. 42,496 was upon communications, Rx. 20,550 upon buildings, and Rx. 20,540 on irrigation. The total length of cart roads was increased to 1,994 miles.

In Cochin the expenditure was Rx. 52,528, of which Rx. 18,927 was upon buildings. The miles of roads maintained amounted to 422.

Bombay. The Government of Bombay exercises political control over some 350 Native States, presenting numerous gradations of size, wealth, and civilisation.

Leaving out of account the railways, the amounts expended by the Native States under the control of the Government on public works during the year were generally small, and, excepting the Lalpuri waterworks, there were no individual works of unusual importance to be recorded. The most important group of Native States lies in North Gujarát, and covers an area of about 44,000 square miles. Of the chief States included in this area, Cutch expended

Rx. 15,659; Palanpur, Rx. 4,867; Radhanpur, Rx. 4,867; and Mahi Kantha, Rx. 8,219. In the Káthiáwár States the outlay on public works amounted to Rx. 337,534, Bhávnagar heading the list with an expenditure of Rx. 92,280. NATIVE STATES.

The largest amount expended in South Gujarát and North and South Konkim was in Dharampore, where there was an outlay of Rx. 8,795, and in Janjira, Rx. 6,470. In the Deccan and South Mahrátha country the largest items were an expenditure of Rx. 59,255 in Kolhapur, and of Rx. 22,007 in the Sangli State.

XI.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

POST OFFICE.

THE receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, are given in the following statement:—

YEAR.	Receipts.	Expenditure.	Net Revenue.	Net Charge.
	Rx.	Rx.	Rx.	Rx.
1895-96 - - - -	1,712,962	1,643,317	69,645	—
1896-97 - - - -	1,783,474	1,698,156	85,318	—
1897-98 - - - -	1,878,466	1,729,586	*148,880	—

If indirect expenditure in connection with the Post Office were added, on the one hand, and a deduction made, on the other hand, of the charges for the District Post (except Baluchistan), which are provided for by local cesses, the net financial results of the three years would be surpluses of Rx. 108,974, Rx. 132,768, and Rx. 195,267 respectively.

The extent of the sphere of operations of the Post Office, and its development during the last three years, are shown in the tables in the margin. These figures are exclusive of the District Post, of which the post offices decreased from 1,483 in 1896–97 to 1,479 in 1897–98, the letter boxes increased from 3,688 to 3,827, and the staff of village postmen decreased from 3,090 to 3,000.

YEAR.	Post Offices.	Letter Boxes.	Village Postmen.	Length of Postal Lines.
	No.	No.	No.	Miles.
1895-96 - - - - -	9,588	15,027	4,262	85,323
1896-97 - - - - -	9,948	16,950	4,388	86,019
1897-98 - - - - -	10,263	17,721	4,588	88,720
Increase in 1897-98 over 1896-97 - - - -	315	771	200	2,701

YEAR.	Letters (including Postcards).	Newspapers.	Parcels.	Book and Pattern Packets.	TOTAL.
	No.	No.	No.	No.	No.
1895-96 - -	364,168,006	28,928,622	2,577,083	18,196,529	413,870,240
1896-97 - -	386,950,269	29,778,291	2,708,769	19,341,398	438,778,727
1897-98 - -	408,797,236	31,891,484	2,965,990	21,364,415	465,019,125
Increase in 1897-98 over 1896-97 -	21,846,967	2,113,193	257,221	2,023,017	26,240,398

In addition to the 88,720 miles of Imperial Postal lines shown in the statement, there were 36,295 miles of District Post lines, and 1,336 miles of political and military lines administered by the Imperial Post Office, so that the total length of the lines over which mails were conveyed was 126,351 miles at the close of 1897–98, as compared with 123,243 miles at the close of the previous year. There was a slight increase under all heads except mail cart lines, but the increase was greatest under the heads of "runners and boats" (chiefly in the Madras circle), and of steamer lines in Burma. The use of light hand-carts, or "Rickshaws," for carrying mails was further extended, and continues to be well reported on in the matter both of economy and speed. The use of bicycles has been tried in parts of the Madras Presidency and in Lahore, and there seems to be every reason to anticipate the success of this form of conveyance in suitable localities.

The general correspondence returns, of which a summary is given above, show an increase of over 26 millions of articles (excluding money orders)

carried by post in 1897–98, as compared with 1896–97. Of this increase, over 9 millions were due to letters, and over 12½ millions to postcards, which, in Bengal, Bombay, the Punjab, and Eastern Bengal, exceeded the total number of paid letters. POST OFFICE.

The total number of articles received for delivery, including money orders, was over 466½ millions, of which 99·03 per cent. were delivered. The net receipts of postal articles (other than money orders) at the Dead Letter Offices for disposal were 4,210,664; of this number, 818,859 articles were disposed of by being re-directed, and then delivered to the persons to whom they were addressed, while 2,299,081 were returned to the senders, and 1,092,724 could not be disposed of. This last figure is only 0·2 per cent. of the total number of articles given out for delivery, and a large proportion of the articles were from their nature not capable of delivery.

A large amount of valuable property was, as usual, found in letters, and other articles posted without address, or with addresses so incorrect or incomplete, that the covers had to be opened in order that the senders might be traced. In articles opened in some of the Dead Letter Offices were found hundis, cheques, bills of exchange, currency notes, and other property amounting in value to Rs. 255,435, 610*l.* 18*s.* 1*d.*, 5 dollars, and 28 francs. The greater part of this property was successfully delivered to the owners.

The number of postal articles, excluding money orders, issued per head of population for the whole of India was 1·63, against 1·54 in 1896–97. Per head of literate population, the percentage was 38·58 against 36·39 in the preceding year.

The letters and postcards despatched from India to the United Kingdom in 1897–98 are estimated at 3,068,417, against 3,037,334 in 1896–97, or an increase of 1·02 per cent. Those received in India from the United Kingdom are estimated at 3,598,444, against 3,174,487 in the previous year, or an increase of 13·36 per cent.

The newspapers and packets despatched home from India show an increase of 2·69 per cent., and the number of such articles received in India from the United Kingdom an increase of 21·73 per cent. The estimates of correspondence received from the United Kingdom are, however, founded on a record of weight taken only twice a year, and it is possible that the figures may not be fairly representative of the whole year's traffic.

The statistics of correspondence exchanged between India and foreign countries and colonial administrations are taken only once in three years, alternately in May and November, and were last recorded in May 1896.

The parcels exchanged with the United Kingdom formed more than 71 per cent. of the whole foreign parcel traffic. The parcels received from, and despatched to, the United Kingdom through the British Post Office, *viâ* Gibraltar, taken together, increased from 162,433 to 169,378. A new parcel service by the overland route across the Continent of Europe was established from the 1st of February 1898, in addition to the service *viâ* Gibraltar; and, up to the 31st of March, 1,244 parcels were sent to, and 583 parcels received from, the United Kingdom, by the new route. There was a small falling off in the number of parcels, both sent and received, through the Peninsular and Oriental Steam Navigation Company, without the agency of the British Post Office, and this service has now practically ceased to be of any importance.

In the exchanges with Continental Europe, the number of parcels despatched from India shows a slight decrease, while the number received in India was about the same as in 1896 97. The new direct services established with France and Germany towards the end of 1897–98 do not appear, therefore, to have had any effect, so far, on the parcel post traffic with the Continent of Europe. In the exchanges with other countries there was a satisfactory development of the traffic in both directions. The increase in the number of parcels sent to non-European countries is again to be attributed mainly to the steady growth of the parcel post with Ceylon.

The receipts from the insurance of letters and parcels were Rx. 26,550, as compared with Rx. 23,495 in the preceding year. The number of insured articles was greater by 9·53 per cent., and the value by 13·47 per cent. The number of parcels insured exceeded the figures of the preceding year by 27,834. Of this increase the larger part (17,554) occurred in Bombay, and

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was due in a great measure to the panic caused by the plague, which drove many of the Marwari and other foreign traders to their homes. They made large use of postal insurance, considering it the cheapest and safest method of having their valuables despatched from Bombay to their native places.

The average value for which each article was insured was, in the case of letters, Rs. 258, as compared with Rs. 259 in the previous year, and in that of parcels, Rs. 327, against Rs. 314 in 1896-97.

The number of claims for compensation preferred in respect of insured articles was 34, as compared with 54 in the preceding year. Twenty-four claims were admitted, which involved the payment of Rx. 705, or 2·65 per cent. of the total amount realised from insurance fees, against a percentage of 4·57 in the preceding year. Of these claims, the loss was due in 12 cases to fraud or negligence on the part of the servants of the Post Office; in six cases to losses by highway robbery of mails in British territory; and in six cases to the sinking of a river steamer with all the mails on board. In the case of one claim which was rejected, the sender was prosecuted and convicted for making a false declaration that the enclosures, consisting of a few old letters, were currency notes.

The business of the value-payable post has practically doubled since 1890-91. The number of articles sent was 2,180,465, and the amount declared for recovery by the Post Office from the addressees was Rx. 2,566,283, the commission on which was Rx. 45,661. There was an increase of 8·53 per cent. in the number of articles, of 11·38 per cent. in the value specified for recovery, and 10·87 in the commission realised. Nearly two-fifths of the entire business of the year was, as in previous years, transacted in the Bengal circle, which practically means Calcutta. Under the arrangement with Ceylon for the transaction of value-payable business, which was introduced in 1891, 23,697 articles, of the aggregate value of Rx. 20,700, were despatched from India to Ceylon, as compared with 21,713 articles and Rx. 19,807 of value in the preceding year. The value-payable system has not yet been introduced between India and any other foreign country.

The number and value of inland money orders issued in India, including telegraphic money orders, but excluding transactions with Native States, increased respectively from 10,947,571 and Rx. 21,972,821 in 1896-97, to 11,664,350 and Rx. 24,233,710 in 1897-98; and the commission realised, from Rx. 279,212 to Rx. 305,720. The average value of an inland money order was Rs. 20. 12. 4., against Rs. 20. 1. 1. in the previous year.

In the North Western Provinces and Oudh the number of revenue money orders, which fell off in 1896-97 owing to the prevalence of famine, showed a considerable improvement; but in the Central Provinces famine continued, during the year under review, to interfere with the progress of the scheme. In the Lower Provinces of Bengal, including Eastern Bengal and Bihar, and in the Punjab, there was an increase in the number and value of these orders. The system of remitting miscellaneous Government dues through the agency of the Post Office continued to make progress in the Lower Provinces of Bengal, and in the North Western Provinces and Oudh. It was introduced in August 1896 into Burma at the request of the Forest Department, and official money orders were issued only from three offices, and numbered 119 of a total value of Rx. 667.

The rent money-order business, which, during the last three years, has been falling off in the North Western Provinces and Oudh, considerably improved during 1897-98. In the Central Provinces there was again a decrease, attributed to causes connected with the late famine, and the progress in the Lower Provinces of Bengal reported last year was not sustained.

In the money-order transactions with Native States the number and value of the issues in those States were respectively 76,043 and Rx. 226,752, against 80,935 and Rx. 192,853 in the previous year; and the number and value of payments in the States were 47,709 and Rx. 136,018, as compared with 44,630 and Rx. 126,606 in 1896-97.

The number of telegraphic money orders issued in 1897-98 was 156,075, for Rx. 1,885,297, as compared with 145,849 orders for Rx. 1,732,736 in the preceding year. The average value of a telegraphic money order was Rs. 120. 12. 8., against Rs. 118. 12. 10. in 1896-97. The chief increase occurred

in Bombay, and is attributed, to some extent, to grain dealers sending telegraphic remittances for the purchase of stocks of grain for the famine-stricken districts in the Deccan. Similar causes doubtless affected other parts of India in the same way, while emigrant labourers and others in distant places, such as Burma, used this mode of remittance more than usual in order to alleviate urgent distress in their homes. The postal commission amounted to Rx. 19,527, in addition to Rx. 15,608 charged for the telegrams, and credited to the Telegraph Department. POST OFFICE.

The foreign money orders for and from the United Kingdom, most of the British colonies and possessions, foreign European countries and most of their colonies and possessions, and Egypt, are issued in sterling, payments being made by the remitters and to the payees in India at the rates of exchange fixed by the Post Office from time to time for this purpose. The number of such orders issued rose from 59,654 in 1896–97 to 63,350 in 1897–98, and the value from 206,507*l.* to 224,346*l.*, while the drawings upon India increased in amount from 186,896*l.* to 221,024*l.* In 1896–97, of the total sterling money-order transactions, viz., 393,403*l.*, no less an amount than 263,557*l.* was with the United Kingdom and British colonies, and in 1897–98 the proportion was 404,219*l.*, out of 445,369*l.*

The average value of a sterling money order issued by India was 3*l.* 10*s.* 10*d.*, as compared with 3*l.* 9*s.* 3*d.* in 1896–97, and that of such a money order paid in India was 5*l.* 11*s.* 3*d.*, as compared with 5*l.* 6*s.* 8*d.* in the preceding year.

The average of the rates of exchange for sterling money orders in force in 1897–98 was 1*s.* 3¼*d.* per rupee, as compared with 1*s.* 2½*d.* in the previous year.

The money-order transactions between India and China, Japan, Ceylon, and some British and foreign colonies in Africa and the East, are advised in Indian currency. The amount of such orders issued by India rose from Rx. 63,393 in 1896–97 to Rx. 74,128 in 1897–98, and the orders paid by India, from Rx. 418,326 to Rx. 465,984.

The average value of a foreign rupee money order issued by India in 1897–98 was Rs. 37. 12. 2., as compared with Rs. 37. 9. 2. in 1896–97, and that of an order paid in India was Rs. 42. 14. 3., as compared with Rs. 42. 1. 1. in the preceding year.

Including inland and foreign money orders, both ordinary and telegraphic, and converting the foreign sterling orders into Indian currency at the rates of exchange in force when the transactions took place, the entire money-order business of the Indian Post Office amounted to Rx. 50,063,361 in 1897–98, against Rx. 45,341,616 in 1896–97.

At the close of the year there were 6,290 offices performing savings bank business, against 6,420 in the preceding year, thus showing a decrease of 130 offices during the year. The number of accounts in the Post Office savings banks rose from 713,320 in 1896–97 to 730,387 in 1897–98; the deposits fell from Rx. 5,661,098 to Rx. 4,365,245; the withdrawals from Rx. 5,365,463 to Rx. 4,997,557; and the interest from Rx. 301,299 to Rx. 280,369. The balance at the credit of depositors at the close of 1897–98 stood at Rx. 9,287,298, against Rx. 9,639,241 at the close of 1896–97. The average balance at the credit of each depositor was Rs. 127. 15., as compared with Rs. 135. 13. in the previous year. The late famine has, no doubt, been the chief factor in these results. Of the total number of accounts, 91·14 per cent. were held by natives.

During 1897–98 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was Rx. 74,260, against Rx. 83,430 in the preceding year; and the balance of securities in the hands of the Comptroller General at the close of the year was Rx. 73,120, compared with Rx. 60,560 on the 31st March 1897. Of this balance, Rx. 66,570 represented the nominal value of securities of the 3½ per cent. loan, the remainder being in the 3 per cent. loan.

As in previous years, the transactions connected with the receipt of salt revenue through the agency of the Post Office were of small importance.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout India, with the exception of the Punjab, and in every postal circle but Bengal the sales show a satisfactory increase. In Madras and some other circles the experiment has been tried of entrusting to

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village postmen packets of quinine for sale. The total amount supplied for sale in 1897–98 exceeded by nearly 393 lbs. the amount supplied in the previous year.

The system of paying the pensions of Native Army pensioners through the agency of the Post Office, in the Punjab, continued to work satisfactorily. The total number of pensioners paid during the year was 24,713, and the amount paid to them was Rx. 178,215.

Arrangements have been in force for some years past for the issue by the Post Office of life insurance policies and contracts for monthly allowances in favour of servants of the Postal and Telegraph Departments. The scheme for monthly allowances has hitherto been practically inoperative; but there was a decided increase in 1897–98 in the number of contracts taken out. The benefits of the life insurance scheme were extended generally to all Government servants, who are subject to civil rules, with effect from the 1st of February 1898, and, from the same date, a system of Endowment assurance was added to the scheme. During the year under review, 291 new policies for the aggregate amount of Rx. 43,825 were issued, of which 82 were endowment assurance policies issued in February and March. Forty-two claims, amounting in all to Rx. 5,590, were paid on the death of insured persons. Since the fund was started on the 1st of February 1884, 2,966 lives have been insured; and, at the close of 1897–98, there were 2,455 active policies in existence (1,861 held by Post Office servants and 594 by servants of other Departments), and the aggregate sum insured was Rx. 346,965. During 1897–98 and the two preceding years no advantage was taken by women of the extension to them of the benefits of the scheme.

During the year under review there were 37 cases in which the mails were plundered by highway robbers, of which 27 were in Native States and 10 in British territories. The figures for the preceding year were 28 and 8 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law were 306, of which 161 were departmentally punished, while legal convictions were obtained in the remaining 145 cases.

The number of complaints made by the public was 19,055, against 18,827 in the previous year. In only 35·02 per cent. of the whole number were the complaints ascertained to be well-founded; 38·58 per cent. were entirely groundless; and in the remaining cases, either the investigation of the complaints had not been completed at the end of the year or no definite conclusion had been arrived at.

Among the principal events of the year, from a postal point of view, were:—

(1) The meeting of the International Postal Congress at Washington, at which the Indian Post Office declared its intention to become a party to the Union Parcel Post Convention.

(2) The conclusion of a new contract with the Peninsular and Oriental Steam Navigation Company, with effect from the 1st of February 1898, for a combined Eastern and Australian Mail Service, under which the time of transit from London to Bombay has been reduced from 16 days 11 hours and 35 minutes to 14 days 15 hours and 35 minutes.

(3) Improvements in the Mail Service between Bombay and Calcutta, *viâ* Nagpore and Jubbulpore, the result being that the weekly special train now brings the foreign mails into Calcutta about 45 hours after the steamer is signalled at Bombay, an improvement in which all the most important places in Northern India share.

(4) The introduction into all parts of Calcutta served by postmen of the General Post Office of a novel scheme of "continuous delivery" throughout the day, the result of which has been a very large increase of local correspondence, which did not formerly pass through the post at all.

(5) The extension of the foreign parcel post to Peru, Honduras, Western Australia, New Zealand, and German South-West Africa, and the introduction of weekly, instead of fortnightly, exchanges of postal parcels with several British colonies.

(6) The reopening of the parcel post with Egypt, Gibraltar, Tangiers, and some other places, which had been temporarily interrupted by quarantine restrictions.

TELEGRAPHS.

TELEGRAPHS. The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran, for which, as usual, a separate account is given. The system now consists of 50,306 miles of line, 154,824 miles of wire, and 264 miles of cable.

During the year Rx. 243,704 were added to the capital expenditure, of which the greater portion was for new lines, the net additions to the system during the year comprising 1,722 miles of line and 6,688 miles of wire. The total capital outlay at the close of the year stood at Rx. 6,293,643.

The number of telegraph offices open to the public at the end of the year, including railway and canal offices, was 4,422, of which 3,302 were maintained by the Department. The net addition to the number of offices during the year was 170.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication:—

	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices Opened.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	TOTAL.
	Rx.						
Up to beginning of 1893-94 -	5,434,661	41,030	126,251	274	1,100	1,453	2,553
During 1893-94 - - -	225,437	1,677	8,004	-	124	58	182
„ 1894-95 - - -	78,330	1,941	4,001	—3	138	10	148
„ 1895-96 - - -	138,428	1,727	4,670	—8	99	12	111
„ 1896-97 - - -	173,081	2,209	5,210	6	102	73	175
„ 1897-98 - - -	243,704	1,722	6,688	—5	71	62	133
To end of 1897-98 - -	6,293,643	50,306	154,824	264	1,634	1,668	3,302

A general view of the operations of the Department in 1897-98, in comparison with the results of the four previous years' working, will be gained from the following statement:—

YEAR.	Number of Messages during Year.	Gross Receipts, including State but excluding *pro formâ* Revenue.	Charges.	Net Receipts.	Percentage of Net to Gross Receipts.	Return on Capital.
		Rx.	Rx.	Rx.		
1893-94 - -	4,184,790	791,852	530,476	261,376	33·0	4·61
1894-95 - -	4,391,226	792,510	569,321	223,188	28·2	3·89
1895-96 - -	4,736,734	886,072	578,373	307,699	34·7	5·24
1896-97 - -	5,077,584	884,049	621,506	262,542	29·7	4·34
1897-98 - -	5,713,227	1,079,295	626,657	452,638	41·94	7·19

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1897-98 the receipts of the Department were sufficient to cover both the working expenses and the amount expended on capital account, and there was therefore no net charge on Government revenues.

The total number of telegrams sent in 1897-98 amounted to 5,713,227, as compared with 5,077,584 in 1896-97, showing an increase of 635,643, or 12½ per cent. The corresponding increase in value was Rx. 203,517, or nearly 29 per cent. Of this sum, Rx. 178,466 was contributed by the increased

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volume of inland State messages, their number being nearly 43½ per cent. in excess of the number sent in the previous year, while their value increased by no less than 158¾ per cent. The unprecedented dimensions of the State traffic of 1897–98 is attributed in a great measure to the military operations on the North-West Frontier, and to illustrate the development of the telegraph in connection with such operations the Director General of Telegraphs compared the traffic of the past year with that of 1880-81 and 1887–88, the years which witnessed the principal operations of the Afghan and Burmese wars respectively. The number and value of State telegrams in each of those years were as follows:—

	Number of State Telegrams.	Value.
		Rx.
1880–81 (Afghan war) - - - - -	313,648	129,753
1887–88 (Burmese war) - - - - -	537,193	164,579
1897-98 (Tirah and other expeditions) - - -	860,382	290,817

The figures are instructive, but, as the Director General of Telegraphs points out, the large increase in the past year was not entirely caused by the frontier disturbances, and was probably due in no small measure to the famine, plague, and earthquake.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively:—

Class of Telegrams.	1896–97.		1897–98.	
	No.	Value.	No.	Value.
		Rx.		Rx.
State, Inland - -	599,890	112,350	860,382	290,817
„ Foreign - -	8,722	6,752	9,896	8,530
Total State -	608,612	119,102	870,278	299,347
Private, Inland -	3,786,938	373,842	4,107,270	395,359
„ Foreign -	682,034	210,411	735,679	212,166
Total Private -	4,468,972	584,253	4,842,949	607,525
GRAND TOTAL -	5,077,584	703,356	5,713,227	906,873

The increasing use of telegraphy by the Indian public is measured by the growth of the inland private traffic, and it is satisfactory to find that in the year under review this class of traffic, when compared with the figures of the preceding year, increased by 8 per cent. in number and 5·7 per cent. in value. The following statement shows the development of the revenue from the inland private traffic for the past 10 years:—

	Rx.
1888–89 - - - - - - - - -	223,151
1889–90 - - - - - - - - -	227,830
1890–91 - - - - - - - - -	245,328
1891–92 - - - - - - - - -	269,542
1892–93 - - - - - - - - -	288,856
1893–94 - - - - - - - - -	305,229
1894–95 - - - - - - - - -	321,597
1895–96 - - - - - - - - -	347,531
1896–97 - - - - - - - - -	373,842
1897–98 - - - - - - - - -	395,359

In foreign private telegrams there is also an increase over the figures for the previous year of 7·86 per cent. in number, and an increase of 0·83 per cent. in value. TELEGRAPHS.

The revenue from trans-Indian traffic fell from Rx. 99,819 in 1896–97 to Rx. 94,364 in the year under review, but exceeded by Rx. 21,209 the figure of Rx. 73,155, at which the revenue stood in 1890–91, prior to the reduction in the transit rates.

The messages sent in the service of the State constituted 15·24 per cent. of the whole number, and the payments made by the Government on account of them made up 33 per cent. of the total message revenue of the Department.

The following figures show the division of the inland traffic into the three classes of Urgent, Ordinary, and Deferred, during the last two years:—

	Percentages.					
	Urgent.		Ordinary.		Deferred.	
	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.
State - - - - - -	8·77	23·47	27·40	21·11	63·83	55·42
Private - - - - - -	5·80	6·19	40·38	33·06	53·62	59·85
Press - - - - - -	5·73	7·59	12·57	12·58	81·70	79·83

The average charge for an inland private telegram is 14 annas and 11·16 pies, and the average length may be taken as 10 words, with free address of at least eight words.

The speed of transmission was on the whole well maintained during the year. There was a falling off in this respect between Calcutta and Rangoon, owing to damages caused by the earthquake of June 1897, and the disastrous cyclone near Chittagong on the 24th October, and some falling off, owing to temporary causes, on other main routes.

The number of complaints received relating to the Indian Telegraph Department was 2,600, equivalent to 0·032 per cent. of the total number of paid messages; 1,549 of these were admitted. Of those admitted, 361 applied to non-delivery, 524 to delay, and 424 to mistakes. The number of messages that for various causes could not be delivered amounted to 19,032, equivalent to 0·263 per cent. of the total number received for transmission.

The total number of interruptions to communications amounted to 2,462, which shows an increase over the previous year, there being an increase also in the total duration of the interruptions.

The number of telegraphic money orders rose to 156,513 from 145,833 in the previous year. In addition to the figures given above, the total number of orders sent to and received from Ceylon during the year under review amounted to 16,501, as compared with 12,112 during 1896–97, and 8,183 during 1895–96.

The inland press telegrams sent numbered 35,910, of the value of Rx. 13,869, against 26,462, valued at Rx. 10,093, in the previous year. The foreign press messages numbered 5,278, and the Indian share of the charges thereon amounted to Rx. 3,304.

As regards electrical improvements, experiments in simultaneous Morse and vibrator working were continued in many parts of the country, with but little success in the direction of the conversion of vibratory into Morse signals. Some good results have, however, been obtained in the simultaneous transmission of the two classes of signals, as many as 20 to 25 messages an hour being regularly disposed of by the vibrator apparatus, without in any way interfering with Morse working over the same wire.

Working on the quadruplex system has been extended during the year to meet the requirements of traffic, the necessary apparatus having been fitted between Bombay and Agra, and also a second set between Bombay and Bhusaval. During the North-West Frontier operations this system of working was carried on at first between Kohat, Lahore, and Simla, and afterwards between Peshawar, Lahore, and Simla, and greatly facilitated the tranmission of the very heavy traffic between these stations.

On the 31st December 1897 there were 1,826 subscribers and 1,802 exchange connections to the telephone companies at Bombay, Calcutta, Karachi, Madras,

TELEGRAPHS.

Moulmein, Rangoon and Ahmedabad. There were also 41 exchanges and 357 exchange connections under the control of the Telegraph Department.

The land route to China *viâ* Bhamo was interrupted for about 150 days in the aggregate. The interruptions, which occur almost entirely in the Province of Yunan, have driven off what little traffic there was.

There was, however, a marked improvement in the working of the Indo-Siam routes, resulting in a material strengthening of the communication between India and the Far East.

From 1st August 1897 a new agreement was entered into with the Kashmir State for the interchange of telegrams between the British and Kashmir State telegraph systems. This is to continue in force for five years.

The revised rules for foreign telegrams, adopted by the International Telegraph Conference held at Budapest in June and July 1896, took effect from the 1st July 1897. Some of the reductions in the rates arranged at this Conference took effect from the 1st January 1897, but the reduced rates only came into force on the 1st July 1897 from India to Malacca, Singapore, Sumatra, the Celebes, &c., Egypt (except Suakim) *viâ* Suez, Persia *viâ* Bushire, Russia (European) and Russia (Asiatic) *viâ* Teheran, and finally to Japan, the last-named reduction being one in which the Bombay mercantile community was much interested.

From the same date the Eastern and Eastern Extension Telegraph Companies notified their acceptance of press telegrams at reduced rates to Egypt, Cyprus, Perim, Aden, Obock, India, Penang, Singapore, Labuan, Java, Cochin China, Tonkin, Annam, Manilla, and the cable offices in China and Australia at the ports of landing of the cables. The Eastern and South African Company and the African Direct Telegraph Company made a similar notification as regards their cables. From the 1st February 1898 reduced rates for press telegrams have also been introduced for certain places in Brazil, Uruguay, Argentina, Chili, and Peru.

A cable has been laid by the Direct West India Cable Company between Bermuda and Jamaica touching at Turk's Island, thus providing a direct cable route, with its stations entirely in British territory, for telegrams exchanged between the United Kingdom and Jamaica. The Eastern Telegraph Company has laid a cable of 708 miles between Vigo and Gibraltar.

With a view to establishing telegraphic connection between the island of Lucon and the islands of Negros, Panay, and Zebu, in the Philippine group, the Eastern Extension Company has laid cables for the Spanish Government from Manilla (Lucon) to Capiz (Panay) from Iloilo (Panay) to Bacolod (Negros) and from Escalante (Negros) to Tuburan (Zebu). The cable offices on the islands of Panay and Negros respectively are connected by land lines belonging to the Spanish Government.

The Japanese Government has abolished its Tsushin Kyoku, or general office of correspondence, which comprised the postal and telegraph services, and has established in its stead two separate departments, namely, the Yumu Kyoku, or Direction-General of Post Offices, and the Denmu Kyoku, or Direction-General of Telegraphs.

The line connecting Mergui with Thayetchoung was completed on 30th April 1898. The question of its extension to Victoria Point is under consideration.

An arrangement was made with the Eastern Telegraph Company, under which, during the monsoon, daily messages were received from the Seychelles, and some long special messages from the Cape, Mauritius, and Zanzibar, giving information as to the progress of the monsoon and the meteorological conditions prevailing in the Indian Ocean.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian Government system at Karachi is known as the Indo-European Government Telegraph Department, and consists of two parts, one, designated the Persian Gulf Section, extending from Karachi to Bushire, with a branch to Fâo, where a connection is made with the Ottoman Government line; and the other, called the Persian

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

section, extending from Bushire to Teheran. It comprises 1,719 knots of cable, 1,377 miles of line, and 3,424 miles of wire, exclusive of the Persian Government line from Teheran to Mashed, 568 miles, which is maintained by the Department.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, was re-transferred to London, with effect from 1st April 1893. It has been found convenient to maintain separate accounts for this Department, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked, and the influences affecting the traffic are completely different from those prevailing on the Indian telegraph system generally.

The capital account of the Department, which stood at Rx. 1,154,977 at the beginning of the year under review, amounted at its close to Rx. 1,153,581, a decrease of Rx. 1,396 which was due to deductions on suspense accounts.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

Year.	Total Capital Outlay.	Gross Receipts.	Expenditure.	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	Rx.	Rx.	Rx.	Rx.		
1893-94 - - - -	1,144,619	135,085	86,060	49,025	4·28	63·7
1894-95 - - - -	1,144,288	157,042	82,689	74,353	6·50	52·6
1895-96 - - - -	1,148,920	167,008	81,745	85,263	7·42	48·9
1896-97 - - - -	1,154,977	148,450	77,147	71,303	6·17	51·9
1897-98 - - - -	1,153,581	154,015	78,198	75,817	6·57	50·77

The total earnings of the Department show an increase of Rx. 5,565, as compared with the previous year. This is due to the fact that the traffic with India, which fell off considerably in 1896–97, more than recovered itself during the year under review. On the other hand, the traffic with places beyond India shows a slight decrease. The increase under miscellaneous revenue is due to larger sales of old cable core and other unserviceable stores.

Owing to the Joint Purse Arrangement which has existed since 1878–79 between the Department and the Eastern and Indo-European Telegraph Companies, the amount shown as gross receipts does not correspond with the actual traffic earnings of the Department, which in 1897–98 amounted to Rx. 184,944.

The Indo-European route actually carried more traffic than its fixed share under the Joint Purse Agreement, with the result that 12,314*l.* had to be refunded by the Department to the other partners, against 16,747*l.* in the previous year. There was also a further refund under the Australasian Message Fund Agreement.

From the 1st January 1894 a Supplemental Agreement came into force, which gave the Department a larger share in the receipts from Indian traffic. The proportions in which the total receipts are divided between the different parties to the Joint Purse Agreement are shown in the following statement:—

Administration.	Indian Receipts.		Trans-Indian Receipts.
	To 1894.	From 1894.	
Eastern Telegraph Company - -	60·39	59·82	80·53
Indo-European Telegraph Company -	22·34	22·12	12·03
„ „ Department	17·27	18·06	7·44

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The general working of the Department continues to be very satisfactory. Only one total interruption to traffic between Teheran and Karachi occurred during the year, and only lasted 22 hours 56 minutes. The cables and land lines are, considering their age, in a sound condition. The speed and accuracy of transmission are also satisfactory.

The murder of Mr. Graves and the rising of the Baluchis on the Mekran Coast were fully reported at the time. Considerable damage was done to the land lines during the latter disturbance, but the cables fortunately worked well, and the through traffic was not interfered with. The lines have now been repaired, and the districts appear to be more settled.

CHAPTER XII.

EDUCATION, LITERATURE, AND THE PRESS.

EDUCATIONAL institutions in India are of two classes :—

(1.) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the primary system of Madras, Bengal, and other provinces. EDUCATION.

(2.) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(2.) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is an optional subject only, they are reckoned as Vernacular.

(3.) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the further examinations required for a degree.

EDUCATION.

In Bengal the number of pupils in public institutions fell from 1,548,593 in 1896-97 to 1,504,892 in 1897-98, and the number of pupils in private institutions from 126,182 to 119,923; thus the total decrease in the number of pupils under instruction was 49,960. The number of public institutions fell from 55,640 to 53,100, and of private institutions from 12,207 to 11,413. While the number of colleges (56) remained stationary, the number of high English, middle English, and upper primary schools showed some increase, but there was a falling off in all other classes of schools. The total number of scholars (1,624,815) represents 14·8 per cent. of the total population of school-going age (as against 15·2 per cent. in 1896-97), the boys (1,520,000) representing 27·8 per cent. (as against 28·5 per cent.) of the male, and the girls (104,815) 1·9 per cent. (as against 2 per cent.) of the female population of school-going age. The decrease can hardly be accounted for by the scarcity which prevailed in some districts. Bengal.

During the year, effect was given to a scheme for the general reorganisation of the Calcutta School of Art, but negotiations for the amalgamation of the Doveton and La Martinière Colleges in Calcutta proved unsuccessful. The percentage of successful candidates throughout the province at the First Arts Examination rose from 38 to 46 per cent. (2,724 candidates entering), while 391 out of 1,588 candidates obtained the B.A. degree. The Presidency College has the best record alike for the First Arts, B.A., and M.A. examinations.

The number of girls' schools fell from 3,218 to 2,817, and the number of pupils attending them from 65,213 to 58,507. Besides these, there were 36,806 girls in boys' schools, as against 38,530.

The percentage of Muhammedan pupils to the total number under instruction fell from 28·4 to 27·4 per cent. (445,179). The number of pupils of aboriginal races fell from 37,848 to 33,708.

EDUCATION.

The boarding-house system is being extended, and some improvement is reported in the progress of physical training. The authorities are fully alive to the grave difficulties caused by the low standard of efficiency amongst many of the masters.

The total expenditure on public instruction amounted to Rx. 1,094,249, showing a decrease of Rx. 2,614. This amount was contributed (roughly speaking) as follows:—From provincial revenues, 23 per cent.; district funds, 11·5 per cent.; municipal funds, under 1 per cent.; fees, 45 per cent.; all other sources, about 20 per cent. The expenditure was distributed as follows:—On University education, 20·7 per cent.; secondary schools, 21·5 per cent.; primary schools, 8·8 per cent.; special education, 7·9 per cent.; building and furniture, 8·3 per cent.; direction, inspection, and miscellaneous, 28·5 per cent.

North-Western Provinces and Oudh.

The total expenditure on education in the North-Western Provinces and Oudh amounted to Rx. 367,402, showing an increase of Rx. 3,412 on the expenditure of 1896–97. This sum was contributed in the following proportions: from provincial revenues, 18·9 per cent.; from local funds, 37·7 per cent.; municipal funds, 2·9 per cent.; fees, 20·8 per cent.; all other sources, 19·7 per cent. The outlay was distributed as follows:—Arts colleges, 14·4 per cent.; secondary schools, 37·3 per cent.; primary schools, 21·7 per cent.; special institutions, 2 9 per cent.; buildings and furniture, 8·9 per cent.; direction, inspection, and scholarships, 14·8 per cent. The expenditure from public funds, both provincial and district, rose, while the contributions from municipal funds and fees fell. The effects of the famine were noticeable throughout the year. Direct expenditure on education increased by nearly a lakh of rupees, but there was a considerable fall in indirect expenditure.

The number of public institutions in the provinces (6,758) showed a decrease of 110, while the number of private institutions rose by 524 to 6,154. This change is largely to be accounted for by the fact that the District Boards were unable to continue their grants-in-aid to a number of "aided primary schools" opened in 1896, which consequently are now classed as "private institutions."

The total number of pupils under instruction in the provinces was 356,543, showing an increase of 3,702 on the numbers of 1896–97 and representing 5·07 per cent. (as against 5·02 per cent. in 1896–97) of the population of a school-going age. Of these pupils, 277,754 were in public, and 78,677 in private institutions. The 339,764 male scholars represent 9·32 per cent. of the boys of a school-going age, and the 16·779 female scholars form 0·49 per cent. of the girls. The proportions in the previous year were 9·26 per cent. of males, and 0·46 per cent. of females. As regards race and creed statistics, 74·51 per cent. of the pupils (as against 75·43 per cent.) were Hindus, and 22 per cent. (as against 21·42 per cent.) were Muhammedans. It is noticeable that among the Muhammedans the scholars represent 14·87 per cent. of boys of school-going age, and 0·74 per cent. of girls, while the corresponding percentages among Hindus were 8·05 and 0·21 per cent. respectively.

University education in these provinces sustained a heavy loss by the death of Sir Syed Ahmed Khan, Bahádur, K.C.S.I., LL.D., the founder of the Muhammedan Anglo-Oriental College at Aligarh. The statistics of the various arts colleges present no very striking feature. Out of 36 candidates for the M.A. and D.Sc. degrees, 22 were successful, while 122 out of 267 candidates obtained the B.A. It has been found that full advantage is not taken of the facilities for scientific teaching in the Muir Central College at Allahabad, which might with advantage become the centre of scientific education in the provinces. As it is, students prefer to resort to local institutions, where it is impossible to provide really efficient instruction in natural science. The number of candidates examined during the year in Sanskrit was 471 (including one woman). The average cost of each university student was Rx. 25.

As regards school education, the postponement of the English course until children have passed the "lower primary section" has led to a reduction in the number of classes and of examinations, and appears to have a beneficial result upon school-teaching. The great difficulty in the way of education is to be found in the inferiority of many of the teachers, more particularly those in Vernacular, and the lower classes of Anglo-Vernacular, schools. It is stated that in the boys' Vernacular schools "a large proportion of teachers are

hopelessly incompetent to teach the elements of their own Vernacular," while in some of the aided primary schools "some teachers are unable to write their own names." The district boards exercise, as a rule, either a very slight or a very unsatisfactory influence on education. They are reported to show an undue zeal for English education, while they insist upon retaining excessively long hours of attendance in Vernacular primary schools. One chairman of a district board considers that "control of schools by municipal boards is ruinous to all efficiency in matters of education." In Anglo-Vernacular schools some grave defects in teaching are noticed: thus it is stated that the lessons too often consist of learning by rote some passages from a text-book, while the use of unsatisfactory "keys" is common. At the same time, considerable efforts are being made to improve the efficiency of teachers. EDUCATION.

The number of boys in Anglo-Vernacular schools is returned at 27,032 (as against 26,367 in the previous year). The income from fees in State schools has increased, and it is considered that the fees charged are not too high for the class of people which wants an English education for its children.

The Agricultural College at Cawnpore, and the Colvin School for sons of Taluqdars at Lucknow, are reported to be doing good work.

Female education continues to advance, the number of girls learning English at Anglo-Vernacular schools being now 2,650.

As regards moral and physical progress, the adoption of a system of drill in village schools is meeting with great success, and it is believed that the cultivation of games in higher schools is exercising a marked influence on the morale of the boys. The boarding-house system is being extended. The very low standard of truthfulness among both parents and teachers of many of the boys renders progress most difficult, as the children are often encouraged by them to give false excuses.

The total expenditure on education in the Punjab (Rx. 315,651) showed an increase of 2·8 per cent. on the figures of the previous year. This sum was contributed in the following proportions:—Imperial revenues, 4·2 per cent.; provincial revenues, 23·4; local funds, 19·6; municipal funds, 10·8; fees, 26·1; other sources, 15·9 per cent. The proportional expenditure was distributed as follows:—On arts colleges, 4·8 per cent.; on secondary schools, 38 per cent.; on primary schools, 19 per cent.; on special institutions, 1 per cent.; on expenses of building, &c., 0·8 per cent.; on direction and inspection, 33·5 per cent. Punjab.

The number of public institutions (3,144) shows an increase of one, while the number of pupils (184,990) rose by rather more than 1,000. On the other hand, a decline of 312 is reported in the number of private institutions (5,051), and the pupils attending them (77,561) numbered 4,600 less than in 1896–97. This decline in the private institutions is attributed partly to the increasing popularity of public schools. The total number of scholars under instruction in the province is 262,551, showing a decrease of over 3,000, but the scarcity that prevailed during the year, and the frontier disturbances, explain the decrease. Of the total number of pupils, 240,522 are males and 22,029 females. The males form 14·24 per cent. of the boys of school-going age (as against 14·49 per cent. in the previous year), while the proportion of girls under instruction has risen from 1·47 per cent. to 1·52 per cent.

As regards the race and creed statistics, the Muhammedans appear to have suffered markedly from the conditions of the past year, a fall of 6,118 being reported in the number of Muhammedan pupils. The percentages of children of a school-going age stand as follows:—Muhammedans, 12·05 per cent. of boys and 1·24 per cent. of girls; Hindus, 16·41 per cent. and 1·36 per cent.; Sikhs, 18·14 per cent. and 2·39 per cent. respectively. Taking attendance at public institutions as the criterion, Muhammedans have one boy out of every 14 and one girl in 196 at school, whereas both Hindus and Sikhs have about one in every seven boys, and Hindus one girl in 87 and Sikhs one in 52 at school.

Secondary schools show an increase of 23 schools and 2,160 pupils, the numbers now standing at 325 and 59,706 respectively. Of these pupils, 57 per cent. belong to Anglo-Vernacular, and 43 per cent. to Vernacular, schools, while the pupils learning English represent 43 per cent. of the total number.

EDUCATION.

In the Entrance Examination 65·3 per cent. of the candidates passed, as compared with 55·9 per cent. in the previous year.

As regards university education, there are now 11 colleges (one of which, the Khàlsa College at Amritsar, was opened during the year), with 1,364 students. The B.A. examination was passed by 142 out of 369 candidates, while nine out of 29 candidates secured the M.A. degree.

The primary schools show a fall in the number, both of institutions (2,452 to 2,420) and of pupils (108,286 to 106,713). The Zamindàri Schools show a marked decline in popularity.

The report on training institutions is very satisfactory, while considerable progress has been made in technical education.

Although female education is still backward, the interest in the matter taken by the Arya Samaj and other societies is encouraging, and it appears that the number of girl pupils coming from villages is increasing. There are now 860 girls' schools with 22,029 pupils.

A most important feature in the report is the remarkable progress made in physical training, while the extension of the boarding-house system, and the increased attention paid to discipline and moral training in preference to mere examination results, are deserving of notice.

Burma.

The total expenditure, Rx. 134,379, showed an increase of Rx. 4,036 on that for the previous year, and was contributed in the following proportions:—Provincial funds, 43·2 per cent.; local funds, 11·1 per cent.; municipal funds, 12·7 per cent.; fees, 20·1 per cent.; other sources, 12·9 per cent. The outlay was distributed thus:—Arts colleges, 5·8 per cent.; secondary schools, 44·4 per cent.; primary schools, 21·4 per cent.; special institutions, 0·8 per cent.; buildings and furniture, 7·2 per cent.; direction and inspection, 20·4 per cent.

The number of public institutions fell from 4,996 to 5,235, while the private schools (which are all elementary) rose from 10,585 to 11,284. The total number of pupils under instruction (259,649) shows an increase of 4,512, but the number in public institutions (143,769) fell by about 6,000. The famine in Upper Burma necessitated the closing of many schools. The attendance of female pupils in Government schools is given as 26,578, 97 per cent. of whom were in the lower primary stage, as were 96 per cent. of the 116,086 boys who attended.

A steady improvement has been noted in secondary education, while the number of pupils attending secondary schools has risen by over 2,000 to 23,559.

As regards special classes, there are 55 Muhammedan schools, with 1,805 pupils; 501 Karen schools, with 15,338 pupils; and 51 Tamil schools, with 1,308 pupils. There are also nine Talaing schools, one Kachin school, and one Chin school.

Good work in elementary, industrial, and kindergarten teaching has been done by many of the missionary institutions. Many indigenous private schools are in the hands of the Buddhist monks, while the "Itinerant Teachers" are praised for their work.

Although the Rangoon College prospers, need of a local university is felt.

The total number of girls under instruction in the province is 32,875, showing practically no change.

Great efforts are being made in the preparation of suitable Burmese text-books, which are urgently needed. One of the most interesting features in the report of the Director of Public Instruction is a report on the "Scheme for the Encouragement of Pali learning in Burma," which, since its inception in 1891, has made satisfactory progress.

Assam.

The total expenditure on education in Assam was Rx. 66,000, as compared with Rx. 65,086 in 1896-97. The direct expenditure fell from Rx. 49,761 to Rx. 48,453, but the indirect rose from Rx. 15,325 to Rx. 17,547. The expenditure was met from the following sources: provincial revenues, 31·58 per cent.; local funds, 30·96 per cent.; municipal funds, 1·06 per cent.; fees, 18·54 per cent.; miscellaneous, 17·86 per cent. The effects of the earthquake necessitated unusual expenditure on buildings and furniture, and have considerably hampered the progress of education in the province. The expenditure was distributed in the following proportions: arts colleges, ·7 per cent.;

secondary schools, 30·3 per cent.; primary schools, 37·5 per cent.; special education, 5·4 per cent.; direction, inspection, and scholarships, 19·2 per cent.; building, furniture, &c., 6·9 per cent. EDUCATION.

The total number of scholars fell off from 103,541 in 1896–97 to 96,925, of whom 89,156 were boys and 7,769 girls. The male scholars represent 21·10 per cent. and the female scholars 1·96 per cent. of the respective populations of school-going age. The total number of institutions was 3,389 (as against 3,534 in the previous year), of which 3,107 (as against 3,225) were public and 282 (as against 309) private. Out of the total number of institutions 244 were devoted to female education.

The local boards showed little energy in educational efforts. The only arts college in the province had 24 pupils on its rolls at the end of the year, as against 27 in 1897. The total number of scholars learning English was 7,244, against 7,626 in the previous year, while 3,530 (as against 3,601) were learning a classical language. The usual defects are noticed in the teachers in primary schools. The schools under mission management continued to do good work. The number of Muhammedan pupils was 19,521 (as against 21,802). The progress of technical education is fairly satisfactory.

During the year which ended on the 31st March 1898 the Central Provinces suffered severely from famine, and the progress of education was seriously affected. Thus the number of schools in British territory (2,215) fell by a little over 2 per cent., and the number of pupils attending them (125,933) by about 6·5 per cent., while in the Native States, although the number of schools (277) rose by 6 per cent., the number of pupils (14,165) fell by 4 per cent. The decrease occurred almost exclusively in primary schools, and the English middle schools and colleges actually show an advance. Central Provinces.

The total expenditure on education amounted to Rx. 101,633 (as against Rx. 105,280 in 1896-97), and of this sum Rx. 94,614 (as against Rx. 99,022 in the previous year) was expended in British territory. The decrease fell principally under the head of "buildings." As regards British territory, provincial revenues contributed 38·7 per cent. of the expenditure; local funds, 25·3 per cent.; municipal funds, 9·8 per cent.; and fees, 12·3 per cent. In British territory about 7 per cent. of the total direct expenditure was devoted to collegiate education, 36 per cent. to secondary schools, and 50·8 per cent. to primary schools. There were no "private" institutions in these provinces, and it is reported that the people are so indifferent to education that the primary schools would, without the encouragement given by Government, be deserted by most of the pupils. A separate primary course, however, has been prescribed for rural schools, and it is hoped that the objections to the education of their children felt by many of the agriculturists will thereby be met to some extent. The percentage of children under instruction to children of a school-going age is 7·04, the male scholars representing 13·27 per cent. and the female 1·13 per cent. of boys and girls respectively. In British territory 38·3 per cent. of Muhammedan boys and 1·8 per cent. of girls are at school, as compared with 15·05 per cent. of boys and 0·8 per cent. of girls among the Hindus, but the great mass of the Muhammedans are only receiving primary education. In spite of the famine and the raising of the fees by nearly 50 per cent., the strength of colleges has risen from 291 to 301. The Rajkumar college, Raipur, for the sons of feudatory chiefs and Zamindars, had 21 students (as against 23) on its rolls.

As regards female education, the work of the Zenana Missions has been excellent, but it is reported that, in the towns, female education appears to lose ground.

The Agricultural College at Nagpur has done good work. A native system of gymnastics is now taught in every Vernacular school in the Provinces.

During the year under report the Hyderabad Assigned Districts (Berar) suffered severely from famine. The number of schools fell by 72 to 1,289, and the number of pupils by 2,178 to 52,165. The decrease in the number of schools has occurred only in the case of "indigenous schools," while the decrease in pupils has affected all classes of institutions except municipal schools. The number of boys at school (48,590) represents 21·68 per cent. (as against 22·62 per cent. in 1897) of the male population of school-going Berar.

EDUCATION.

age, and the number of girls (3,665) 1·74 (as against 1·76) per cent. of the female. Of the schools, 1,284 (as against 1,356), with 51,997 pupils (as against 54,186), were "public," and five, with 168 pupils, were "private."

The total expenditure on public instruction rose from Rx. 42,457 in 1897 to Rx. 43,363, of which Rx. 34,378 was classed as "direct expenditure." Of this total sum about 17 per cent. was expended on secondary schools, and about 59 per cent. on primary schools. Provincial revenues supplied 52·6 per cent. of the total expenditure; local funds, 30·6 per cent.; municipal funds, 3·9 per cent.; and fees, 9·6 per cent. The fee receipts in primary schools show a decrease of Rx. 141. A complaint is made of irregularity in attendance on the part of many pupils. The record of female education calls for no remarks. The number of Muhammedan scholars fell from 7,461 to 7,143, and that of "aboriginal" pupils from 213 to 206. A new Protestant school for Europeans and Eurasians was opened at Amraoti.

Madras.

In Madras the total expenditure on public instruction rose from Rx. 647,869 to Rx. 689,765. This sum was expended in the following proportions:—On university education, 12·69 per cent.; on secondary schools, 30·62 per cent.; on primary schools, 30·49 per cent.; on special institutions, 7·35 per cent. (making an aggregate of 81·15 per cent. of the gross expenditure, or Rx. 559,750, on direct as opposed to indirect expenditure). The sum was contributed in the following proportions:—Provincial revenues, 28·01 per cent.; local funds, 12·04 per cent.; municipal funds, 3·33 per cent.; fees, 30·18 per cent.

The total number of pupils of both sexes under instruction rose by about 6,000 to 828,560. Of these, 719,579 were in public institutions (which numbered 21,850), and 108,981 in the 5,388 private institutions. The increase in the number of pupils occurred chiefly in the latter class. The 707,747 male scholars represent 26·78 per cent. of the male, and the 120,813 girls 4·47 per cent. of the female population, of school-going age.

As regards university education, 556 candidates were admitted to degrees in the several faculties, the number being unusually large. The "indifferent teaching throughout" the schools, and the "want of thoroughness in the lower classes and forms" are criticised in the report, which also dwells upon the "unhealthy rivalry" between schools, and the unfair promotions given to boys by masters who wish to make their schools popular.

Female education continues to make some progress, and two female candidates presented themselves for the last B.A. examination. The total number of Muhammedan students fell from 100,924 to 100,295 (or, in other words, from 29·9 to 29·7 per cent. of the Muhammedan population of school-going age), a marked decrease taking place in the number of girls at school. It is stated that missionaries have done, and are doing, very good educational work among pariahs. The number of children of "aboriginal" and hill tribes at school fell slightly to 1,830. Physical education is advancing, but much remains to be done in this respect.

Bombay.

The total expenditure in the Presidency (including Native States) on education rose very slightly to Rx. 737,686. Of this sum, provincial funds contributed 27·7 per cent.; local funds, 13·3 per cent.; municipal funds, 5·4 per cent.; fees, 19·8 per cent.; and revenues of Native States, 18·3 per cent. The expenditure was distributed as follows:—University education, 6·6 per cent.; secondary schools, 24·6 per cent.; primary schools, 45·7 per cent.

There were 9,917 public institutions (as against 10,102 in 1895–96) with 580,855 (as against 601,926) pupils, and 2,762 (as against 2,832) private institutions with 67,786 (as against 70,779). The decrease is due to the exceptional distress. The male scholars (566,171 in number) represent 27·12 per cent. of the male population of school-going age, and the 82,470 girls 4·21 per cent. of the female population.

The progress of education among Muhammedans is not satisfactory, but it is impossible to base inferences upon the statistics of a year of plague. The number of pupils on the rolls of the Ráj Kumár College rose to 42. The record of Special Education calls for no remarks.

Coorg.

The year 1897–8 was from an educational, as well as an agricultural point of view, a disastrous season for Coorg. The total expenditure on education dropped from Rx. 4,152 to Rx. 3,905. while the total number of pupils fell

from 5,115 to 4,328, and the institutions from 120 (79 public with 4,696 pupils, and 41 private with 419 pupils) to 105 (77 public with 3,996 pupils and 28 private with 332 pupils). The 3,594 boys at school represent 25.98 of the male population of school-going age, and the 734 girls 6.34 of the female. The Pariahs continue to show a gratifying interest in the education of their children. EDUCATION.

LITERATURE AND THE PRESS.

LITERATURE.

The number of publications received in the Bengal Library was 2,282, showing a decrease of 2·72 per cent on 1896. This number, however, is believed to come very far short of the number of publications actually issued in the province, as there is reason to think that evasion of the registration laws has been habitual in the case of certain publishers. The question has engaged the attention of the Bengal Government, and measures will be taken to enforce the law. Of the publications registered, 675 are periodicals and 1,607 are books, 1,431 of the latter being original works. Bengal.

The 675 periodicals represent 114 distinct journals, of which 37 are in English, 13 are bi-lingual, and most of the remainder are in Bengali. Perhaps the most important of the Bengali journals are the "Sáhitya" and the "Bhárati," the latter being edited by two Hindu ladies. Two periodicals are in Sanskrit, while of the bi-lingual journals two are in English and Sanskrit, and nine in Bengali and Sanskrit. As regards books, 230 (as against 263 in 1896) were published in English, 784 (as against 752) in Bengali, 50 (against 54) in Sanskrit, 24 (against 13) in Urdu, 92 (against 106) in Hindi, 180 (against 156) in Uriya, while there have been a few bi-lingual and tri-lingual books, and the Arabic, Assamese, Garo, Khási, Manipuri, Musulmani-Bengali, Nepalese, Persian, Santali, and Tibetan languages are represented by a few works in each. The Bengal Librarian considers that Bengali literature is passing through a period of decline, since no worthy successors to such Bengali writers as Iswar Chandra Vidyáságar, Bhúdeb Mukherji, and Bankim Chandra Chatterji have as yet appeared, and the younger writers have, as a rule, little knowledge of the great Sanskrit models. At the same time, there is a great amount of literary activity, and the vernacular writers deal with all manner of subjects, and "desire to assimilate, and disseminate in a suitable garb among their countrymen," the knowledge gained from European sources. The Bengali books published during the year include 43 dramas (as against 34), 57 works of fiction (against 83), 34 books on history (against 37), 179 treatises on language (against 149), 132 volumes of poems (against 99), and 123 religious works (against 117). Of the last class, 54 belong to Hinduism and the same number to Christianity. A very large proportion of the lighter works are devoted to various forms of social satire.

The total number of publications received in 1897 was 1,466 (against 1,233 in 1896). These were in the following languages: English, 91 (against 105); Urdu, 508 (against 514); Hindi, 354 (against 230); Sanskrit, 43 (same number as previous year); Arabic, 16 (against 22); Persian, 63 (against 71); polyglot and bi-lingual, 333 (against 240), of which 109 were in Arabic and Urdu, 70 in Sanskrit and Hindi, 47 in Persian and Urdu, and 15 in Arabic and Persian; minor vernaculars (including Punjábi, Bengali, Nepali, Maráthi, &c.), 58. North-Western Provinces and Oudh.

As regards the subject-matter, 335 works were educational, many of which were mere "keys," while of the other publications 413 works were devoted to religion, 222 to poetry, 64 to fiction, 29 each to history and medicine, 21 to law, and there were 17 biographies and 20 dramas. A general improvement in tone is reported in the works of fiction. As regards religious works, the Arya Samaj has shown increased activity, and the Jains have for the first time issued religious works to the general public. Urdu poetry continues to be mainly erotic. Ten new periodicals were started during the year, and 13 old ones discontinued.

The number of publications registered during the year in the Punjab rose from 971 to 1,074, the increase taking place mainly under the heads of religion and poetry. The number of English publications was 101 (against 80); Urdu, 471 (against 411); Punjábi, 234 (against 208); Hindi, 77 (against 71); Punjab.

LITERATURE. Arabic, 31 (against 21); Persian, 22 (against 29); Sanskrit, nine (against seven); minor vernaculars (including Sindi, Kashmiri, and Pashto), 31; bi-lingual and polyglot, 98.

Of the books, 280 (against 256) are devoted to poetry, 271 (against 194) to religion, 96 to language, 85 to law, 36 to fiction, and 22 to biography. The works of fiction are, as a rule, of a degraded type. Of the works on religion, 140 are Muhammedan, while in the Punjab, as well as in the North-West Provinces, the increased activity of the Arya Samaj and the Jains is a noticeable feature. Only 17 works deal with the Sikh religion. Amongst the miscellaneous works, the account of a tour in Europe and America, written in Urdu, by H.H. the Rajah of Kapurthala, calls for attention. There were 96 periodicals, of which 62 were religious.

Assam. Only six works were registered in Assam in 1897, against 15 in the previous year. These were all written in the Assamese language. The literary depression is attributed to the effects of the terrible earthquake which occurred in June 1897.

Central Provinces. In the Central Provinces 52 publications (as against 34 in 1896) were registered, of which 42 were in Hindi, one work (educational) in English and Hindi, five in English, and four in Maráthi. Fourteen of the Hindi publications were poetical.

Berar. In the Hyderabad Assigned Districts 11 publications were registered, as against 13 in 1896. These were all in the Maráthi language.

Mysore. In the station of Bangalore five books were published (three in Canarese and one each in Tamil and English). In the State of Mysore 113 (against 135) works appeared, of which 80 were in Canarese, six in Sanskrit, 18 in Sanskrit and Canarese, and three in English. There were no publications in Coorg.

Bombay. The total number of works registered in the Bombay Presidency was 1,036 (as against 1,384 in 1896), the decrease being attributed to the prevalence of plague in Bombay and other towns. Of the 605 books, 178 were in Gujaráti, 147 in Maráthi, 53 in English, 43 in Hindi, 28 in Sanskrit, 15 in Canarese, 15 in Sindi, 10 in Urdu, five in Persian, three in Márwádi, two in Konkani, and two in Arabic, while 104 were bi-lingual or polyglot (Sanskrit-Hindi being the most general combination). The 431 periodicals included 117 English, 141 Gujaráti, 130 Maráthi, and 11 Sanskrit publications.

The Gujaráti books include several novels of Parsi life, and two translations of romances by Mr. Rider Haggard, while among the Maráthi books may be noticed a hand-book on shorthand, a guide to tailoring (each marking a new departure in Maráthi writings), translations of two volumes in the "Rulers of India" series, a noteworthy life of Raja Sir Dinkar Rao, the Gwalior statesman, and a translation of Professor Max Müller's Lectures on Religion, the theories of which, it is remarked, "must necessarily appear to orthodox Hindus to be grotesque."

Madras. The total number of publications in the Madras Presidency was 951 (against 969 in 1896), of which 769 were books and 182 periodicals. The decrease is only apparent, as several periodicals which in 1896 were received *seriatim* were this year delivered in bound volumes. The comic stories in the Telegu "Chamatkárakathákallolini" are praised, while works on religion and philosophy form about one-fifth of the total number of publications. When classified according to language the various works stand as follows:—Telegu, 276; English, 223; Tamil, 200; Sanskrit, 57; Canarese, 42; Malayalam, 32; Urdu, two; Arabic, Latin, Italian, Maráthi, Tulu, Badaga, and Uriya, one each; bi-lingual and polyglot, 112 (Sanskrit-Tamil, with 29 works, occupying the first place).

Burma. In Burma there were 59 publications (as against 73), of which 23 were religious and 16 educational. There were 24 books in Burmese, seven in English, three in Sgau-Karen, one each in Kachin, Tamil, Pwo-Karen, and 22 bi-lingual (15 of which were in Pali and Burmese). The only work of special interest is Captain Grant's "Orchids of Burma."

CHAPTER XIII.

EMIGRATION AND MIGRATION.

I. EMIGRATION.

Emigration.

Calcutta.

The Port of Calcutta was opened in 1897 for Emigration to British East Africa. The British colonies of Demerara, Natal, Mauritius, Trinidad, and Fiji, and the Dutch colony of Surinam, continued to indent for labourers. The total number of adult labourers requisitioned by British colonies (7,024) was 1,752 less than last year, but the supply exceeded the demand by 155½* statute labourers. Surinam requisitioned 590 labourers, who were despatched in January 1898.

The number of emigrants registered was 12,315 (as against 16,439 in 1896), giving an average of 22 per recruiter. Of these, 7,151 were Hindus, and 56 per cent. were recruited in the North-Western Provinces, 24 per cent. in Oudh, and 19 per cent. in Bengal and Behar. The recruiters for Fiji secured the largest average of emigrants (48 souls each), while those of Demerara recruited the lowest number (only 10 each on an average). Of the 539 recruiters' licenses issued (as against 755 in 1896), only 3 (as against 12) were cancelled for misconduct.

The number of intending emigrants left over from last year was 176, which brought the number for disposal in 1897 up to 12,491. But of these, 2,677 were never sent to Calcutta. In addition to these, 1,442 (as against 2,611 in 1896) were rejected as unfit, 460 deserted, and two died. Of the remainder, 153 remained in the sub-depôts at the close of the year, and 239 were not accounted for. In the end, 9,411 (or 75 per cent. of those recruited) actually arrived in Calcutta.

The number accommodated in the depôts was 9,809 (as against 12,796), but among these the number of casualties and discharges amounted to 1,553 (or 15·83 per cent., as against 18·31 per cent. in 1896). Of the remaining 8,256 souls, 7,589 were shipped, and 667 left over in the depôts.

These emigrants were despatched to the various British colonies (the Surinam labourers not being shipped until 1898) in the following proportions:—To Natal, 38·23 per cent.; to Trinidad, 24·39 per cent.; to Fiji, 17·56 per cent.; to Demerara, 15·73 per cent.; to Mauritius, 3·99 per cent. These numbers included 149 returned emigrants, of whom 69 went to Demerara, 62 to Natal, and 18 to Fiji.

Adult men constituted 46·30 per cent. of the emigrants, and adult women 34·22 per cent. The number of ships employed was 16, of which nine were steamers (as against 19, of which six were steamers, in 1896), but steamers were employed only for the Mauritius and Natal voyages. The mortality on board amounted to ·76 per cent., as against 1·26 per cent. in 1896.

The number of time-expired emigrants who returned during the year was 3,750, as against 3,926 in 1896. There were 95 deaths on the homeward voyage, and 30 of the returned emigrants were lepers, 19 of these coming from Trinidad. The aggregate of savings brought back was Rx. 45,186, the general average being Rx. 12 (as against Rx. 17), and the particular averages varying from Rx. 21, in the case of Trinidad, to Rx. 2 in that of Mauritius. One emigrant returned, with no savings, from the French colony of Réunion.

The number of British Indian emigrants resident in various colonies is stated (in round figures) as follows:—

Mauritius	113,000
Demerara	111,000
Trinidad	78,000
Natal	45,000
Jamaica	14,000
Fiji	10,000
Surinam (Dutch)	11,000
Réunion (French)	21,000

* For statute purposes each adult emigrant is considered equivalent to two children.

EMIGRATION. Immigration to Réunion was suspended in 1882. This table takes no account of the considerable numbers of Indian emigrants resident in the Straits Settlements, the Protected Malay States, and Ceylon, and the smaller numbers in Borneo, East Africa, the French West Indies (to which immigration has ceased), and some of the smaller British West India Islands, such as St. Lucia.

Madras. Agencies were maintained at Madras by the Mauritius and Natal Governments, and the condition of the depôts and health of the emigrants were satisfactory. The number of admissions to the Mauritius depôt was 189 (as against 378 in the previous year), and of this number 123 (against 242) were despatched to Mauritius, the percentage of women to men being 34·2. The number of emigrants to Natal rose from 1,151 in 1896 to 3,123, out of 5,657 recruited; the number medically rejected being 1,167. The percentage of women to men was 41·62.

The number of indentured emigrants that started from Negapatam for the Straits Settlements was 2,962, as against 2,861, while the number of free passengers from various Madras ports was 18,179 (as against 17,613).

For Ceylon 166,186 emigrants embarked (as against 119,912 in 1896). During the year under report 261,473 British subjects left the Presidency for countries outside British India.

Mauritius repatriated 418 emigrants, with aggregate savings of Rx. 497; Natal, 127, with savings of Rx. 2,770; and Réunion, 51, with savings of Rx. 202. Besides these, 118,046 emigrants returned from Ceylon.

Bombay. The number of labourers that left Bombay and Karachi for Uganda during the year was 1,713.

A broker was fined Rs. 1,000 for unlawfully taking coolies to Beira for employment in Rhodesia, and a Parsee was punished for attempting to ship coolies to Delagoa Bay.

The spontaneous emigration from India to Africa continued unabated, and comprised labourers and artisans of every kind.

II. MIGRATION.

MIGRATION. The large number of 95,931 immigrants, including children, entered Assam in 1897, the figures showing an increase of 14,816, or 18·3 per cent., over those of 1896. These figures represent only the labourers who entered the province to work on tea-gardens and coal-mines, and do not include the "free labourers" who are employed upon the Assam-Bengal Railway. The increase in immigration took place almost entirely in the Assam Valley, and may be attributed to scarcity in India, as is shown by the fact that 31,486 women and 29,603 children were included amongst the immigrants.

Assam. The number of "free labourers" not under contract (the term includes all coolies not enlisted under the Emigration Act) was 53,064, more than half of whom went to the Assam Valley. Besides these, 14,992 coolies entered into contracts at Dhubri, after entering the Assam Valley, and 2,250 more did not contract until they arrived in the various labour districts; so that only 25,625 in all were originally enlisted under the Emigration Act.

A further development in recruiting took place in the Central Provinces, where 19,876 adults were engaged, as against 17,285 in 1896. When the Act was extended to these provinces in 1893, only 876 coolies were engaged. The number of immigrants from Bengal rose to 34,926, the chief increase occurring in Chota Nagpore, the division that provides the most suitable class of coolies for labour in Assam. A large fall is reported in recruitment in the North-Western Provinces. It is well-known that coolies from these provinces suffer to some extent from the climate of Assam, and certain gardens have recently been closed to them by Government. A few of the immigrants came from Madras and Bombay.

While the "contractors' recruits" are falling off in number, those enlisted by "garden sardars" were more than double last year's total. The sardari system is in several respects the more satisfactory, and its expense is diminishing. Thus, in 1897, each sardar recruited, on an average, 5·4 labourers, as against only two labourers in 1896.

As regards the medical statistics, the percentage of coolies rejected on physical grounds at Dhubri rose from 3·2 in 1896 to 8·1 (which approximates to the percentage for 1895; viz., 8·6). This was only to be expected from the character of the year, the chief recruiting grounds being affected with scarcity or famine, and the physique of the emigrants generally consequently impaired. MIGRATION.

The outbreak of cholera amongst the immigrants, mentioned last year, was more severe than was then believed. It was ascribed in part to insanitary transport arrangements, and steps have been taken to improve these.

Only 70 contracts were cancelled on account of "fraudulent enlistment," but 99 were annulled on the ground of permanent incapacity to labour, and contracts cancelled by "mutual consent" increased from 1,250 to 2,250.

The number of "local contracts" made within Assam (not including those entered into by newly-arrived immigrants at Dhubri) amounted to 29,988, about one-half of these being for one year only. Almost all these contracts indicate the re-enlistment of time-expired coolies.

The question of wages has engaged the attention of Government, and efforts are being made to induce the planters to agree to an increase of the legal minimum rate of wage, which, by the Act of 1882, stands at a monthly wage, for a completed daily task, of five rupees for a man and four rupees for a woman during the first three years of contract, and six and five rupees respectively during the fourth and fifth years. Apart from the fact that in many cases labourers do not work for the fixed number of working-days, and therefore earn less than the sum which must be paid for a completed month of working days, prices have risen considerably in Assam since 1882.

The number of coolies convicted of rioting fell from 243 to 190. Excluding cases of desertion, which are treated separately, there were 129 breaches of the Act of 1882 on the part of employers or labourers. Many of these offences (which stand at the same figure as in 1896) were merely technical. Under the Fraudulent Breach of Contract by Labourers Act there were 156 convictions, as against 199 last year, but this figure represents only about 1 per cent. of the absconders. The increase in the number of desertions was considerable (from 17,595 to 23,670), the figures representing 4·4 per cent. of those engaged in healthy gardens, and 6·64 per cent. in unhealthy (as against 3·58 per cent. and 6·22 per cent., respectively). The number of desertions amongst contract-labourers reported under the Act of 1882 was 6,432 (as against 5,676 in 1896): the number of convictions, in cases brought into court, fell from 712 to 639. The number of gardens classed as unhealthy was 119, compared with 46 in 1896. The death-rate was 41·4 per 1,000, which, though high, compares favourably with the death-rate of 50·61 for the whole province. The year was a very unhealthy one, but the immigrants suffered less than might have been expected. The most prevalent complaints were dysentery, malarial fever, and anæmia. The birth-rate, though still low, increased slightly.

The number of immigrants decreased considerably, the figures at the various ports standing as follows:—Akyab, 15,925 (against 16,527); Rangoon, 106,374 (against 114,625); Moulmein, 644 (against 733); Kyaukpyu, 468 (against 2,732). Burma.

At the same time the numbers leaving Burma increased, the figures for emigrants being: Akyab, 14,359 (against 17,894); Rangoon, 75,998 (against 66,469); Moulmein, 847 (against 1,256); Kyaukpyu, 437 (as against 1,309).

The number of free emigrants to Burma increased by nearly 17 per cent. to 71,170. The number of indentured emigrants to Assam rose from 967 to 1,044. The number of emigrants returned from Burma was 36,554 (as against 35,517), while 49,100 (as against 65,297 in 1896) returned from other parts of British India. Madras.

XIV.

TRADE AND MANUFACTURES.

(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)

TRADE.

TRADE.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1898, was valued as follows:—

	Tens of Rupees.				
BY SEA.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.
Private Imports:	Rx.	Rx.	Rx.	Rx.	Rx.
Merchandise	73,956,957	70,167,438	69,316,395	71,914,697	69,420,120
Treasure	18,425,256	9,559,007	13,358,986	13,075,353	20,476,286
	92,382,213	79,726,445	82,675,381	84,990,050	89,896,406
Private Exports:					
Foreign Merchandise re-exported	4,431,975	5,057,414	4,717,516	4,033,637	3,751,172
Indian Merchandise	102,015,615	103,757,585	109,545,624	99,880,660	93,786,101
Treasure	4,024,737	8,158,017	4,232,301	4,925,891	7,134,169
	110,472,327	116,973,016	118,495,441	108,840,188	104,671,442
Government Transactions:					
Imports Stores	3,064,475	3,361,555	3,620,358	4,189,251	4,240,340
Imports Treasure	36,000	22,200	9,000	9,210	54,331
Exports Stores	55,779	98,779	71,598	69,799	95,508
Exports Treasure	75,455	68,055	27,510	11,605	14,478
	3,231,709	3,550,589	3,728,466	4,279,865	4,404,657
TOTAL Trade by Sea	206,086,249	200,250,050	204,899,288	198,110,103	198,972,505
BY LAND.					
Imports	4,351,251	4,931,538	4,974,286	5,637,527	5,634,455
Exports	3,698,321	4,254,198	4,230,297	4,937,071	4,918,021
GRAND TOTAL of Trade by Land and Sea	214,135,821	209,435,786	214,103,871	208,684,701	209,514,981
Excess imports of treasure	14,361,064	1,355,135	9,108,175	8,147,067	13,381,970
Net excess of exports over imports of merchandise, Government transactions, and treasure	15,120,900	34,029,600	32,289,800	19,733,100	10,590,300
India Council Bills paid in India	16,422,700*	28,884,100	33,080,900	25,227,900	15,561,900†

India's trade in 1897–98, as in 1896–97, was adversely affected by the drought of 1896, which caused failure of harvests and famine over a large part of India, and by the plague which hindered trade and business of all kinds in Bombay during the latter part of the year. During the first half of the year

* During 15 weeks of the year 1893–94 no Council Bills were sold.

† As in previous years, the Council Bills and Telegraphic Transfers actually paid during the year in India are given; the Bills actually drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1897–98 amounted to Rx. 14,812,800, yielding 9,506,077*l.*, at an average rate of 15·402 pence per rupee.

the export trade was still suffering the effects of the bad crops of 1896; and the excellent crops of 1897 were late, so that the increased exports of agricultural produce took place for the most part after the close of the financial year. TRADE.

The returns for the later part of the year were affected by the reappearance of the plague in Bombay; and the quarantine restrictions impeded trade operations. A further impediment was the stringency of the money market, the Bank of Bengal rate was 10 per cent. during the first 2½ months of 1897–98, and, after sinking to 5 per cent. in July, rose from 10 to 12 per cent. between January and the end of March. The fall in the value of exported merchandise was 6 millions of Rx., or about 6 per cent. There was a decrease of 2½ millions, or 3·8 per cent. in the value of merchandise imported There was, however, so large an increase in the movements of treasure that the total of private trade, imports and exports included, shows an increase of ·38 per cent. as compared with the previous year, and was only 3·28 per cent. less than the trade of 1895–96, which was a good year.

The trade across the land frontier of India was valued at Rx. 10,552,000, about the same figure as that of the preceding year, which had shown the largest trade till then recorded. Trade by land to and through Afghanistan, Bajaur, Kashmir, and Western China, showed a decrease. Trade with Nepal, Siam, and the Shan States increased.

The coasting trade between Indian ports more than recovered the falling-off of the previous year, being valued at Rx. 75,859,000 in 1897–98, as compared with Rx. 74,605,000 in 1895–96. The increase was chiefly due to the supply of 614,000 tons of rice from Burma to the rest of India. Eighty per cent. of the coasting trade of India is now carried by steamers.

The value of the chief articles imported to, and exported from, India in the past four years, exclusive of re-exports, is as follows :—

VALUE OF CHIEF ARTICLES OF IMPORT BY SEA (exclusive of Treasure).

	Tens of Rupees.			
	1894–95.	1895–96.	1896–97.	1897–98.
Cotton woven goods	29,822,000	22,784,000	26,424,000	22,902,000
Metals and hardware	6,346,000	8,196,000	7,021,000	7,668,000
Oils, chiefly petroleum	2,221,000	3,137,000	3,439,000	4,147,000
Silk, raw and manufactured	2,314,000	2,937,000	2,242,000	1,819,000
Cotton yarns	2,851,000	2,971,000	3,326,000	3,493,000
Sugar	2,875,000	3,107,000	3,152,000	4,784,000
Machinery and mill work	2,442,000	3,237,000	3,510,000	2,861,000
Provisions	1,564,000	1,785,000	1,537,000	1,706,000
Chemicals, medicines, dyes	1,866,000	2,161,000	1,890,000	2,061,000
Woollen goods	1,542,000	1,446,000	1,693,000	1,148,000
Liquors (alcoholic, including beer)	1,458,000	1,696,000	1,645,000	1,588,000
Apparel	1,435,000	1,594,000	1,516,000	1,227,000
Railway material	1,557,000	1,521,000	2,662,000	2,876,000

The chief feature of the figures of 1897-98 was the great falling-off in cotton fabrics, amounting to 13 per cent. The prices of cotton goods were low, dyed cottons especially low, and it is stated that the market had been overstocked in the previous year. The imports of silk, machinery, woollen goods, liquors, and apparel also declined. The most noticeable increase was in sugar imports, whose value increased over 50 per cent., while the quantity was 61 per cent. greater than in 1896-97; Mauritius sugar still holds first place but the market was flooded with beet sugar from Austria-Hungary and Germany, diverted from the United States by the tariff legislation in that country. In the year under report 45 per cent, of the total sugar imports came from those two countries, as against 27 per cent. in 1896-97.

TRADE.

VALUE OF EXPORTS BY SEA (exclusive of re-exports of Imported Goods).

	Tens of Rupees.			
	1894-95.	1895-96.	1896-97.	1897-98.
Raw cotton	8,703,000	14,090,000	12,970,000	8,871,000
Rice	13,692,000	13,431,000	11,850,000	11,587,000
Oilseeds	14,202,000	9,717,000	8,012,000	8,594,000
Jute, raw and woven	14,788,000	14,740,000	15,765,000	16,060,000
Opium	9,065,000	8,459,000	8,023,000	6,098,000
Wheat	2,565,000	3,914,000	836,000	1,342,000
Cotton yarns	5,672,000	6,731,000	7,173,000	6,955,000
Tea	7,556,000	7,665,000	8,125,000	8,059,000
Hides and skins	6,560,000	7,639,000	7,001,000	8,318,000
Indigo	4,746,000	5,355,000	4,371,000	3,057,000
Coffee	2,122,000	2,198,000	1,585,000	1,519,000
Cotton woven goods	1,360,000	1,463,000	1,204,000	1,065,000
Wool, raw	1,377,000	1,353,000	1,241,000	1,359,000

The table shows a general decline, which is most marked in the case of cotton, opium, and indigo. To the causes already mentioned as obstructing trade can be added, in the case of these staples, the necessity of increasing the breadth sown with food grains. Of the cotton exported, Japan took 35 per cent., which is not so much as in 1896-97, but considerably more than in previous years. The good crops of grain which were obtained in 1898 hardly affect the returns of 1897-98, so that the wheat exports only very partially recover. The chief increases occurred in hides and skins and in jute manufactures. The prices of almost all staples declined considerably.

Lower Burma, the chief rice-exporting province of India, had a good rice harvest, and a full exportable surplus, so that though the amount sent to India was almost doubled, the exports to foreign countries only fell to a slight extent.

India's trade in merchandise with gold-standard countries was, in the year of the closing of the Mints 77 per cent. of her total trade; since then it has fallen to 75 per cent., but stood at 76·4 per cent. in the year under report, owing to the inclusion of Japan among gold-standard countries. The proportion of trade directly with European countries, was 65 per cent. as in the previous year, omitting the four crores trade with Egypt, much of which really goes to Europe. The trade with the United Kingdom was 70 per cent. of the trade with Europe, and 46 per cent. of the total trade, against 47·2 per cent. in 1896-97.

The value of India's trade with some of the chief countries has advanced or decreased thus:—

	Total Value.			
	1891-92.	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.	Rx.
United Kingdom	82,812,000	83,304,000	83,034,000	76,818,000
France	12,009,000	9,657,000	7,288,000	6,526,000
China	16,701,000	15,755,000	15,968,000	13,918,000
Germany	5,254,000	10,413,000	9,855,000	9,623,000
Straits Settlements	7,603,000	8,285,000	7,172,000	6,973,000
Belgium	6,790,000	6,682,000	5,463,000	5,324,000
Italy	3,540,000	3,561,000	3,535,000	3,198,000
Ceylon	3,396,000	4,214,000	3,927,000	5,170,000
Japan	1,361,000	3,237,000	4,642,000	4,708,000
United States of America	5,079,000	7,053,000	6,285,000	7,307,000
Russia	1,370,000	2,269,000	2,446,000	2,290,000
Austria-Hungary	3,020,000	4,675,000	3,991,000	4,253,000

The five last-named countries alone show any increase in their trade with India, all others showing a greater or less decrease; but the chief feature of

the year is the fall in trade with the United Kingdom, amounting to 7½ per cent., a large part of which is due to a weaker demand for cotton fabrics. TRADE.

Among the maritime provinces of India the Bombay Presidency had 31·19 per cent. of the foreign trade in merchandise, Bengal had 43·83 per cent., Madras had 10·67 per cent., Burma had 8·78 per cent., and Sindh had 5·53 per cent. Among the chief seaports Bombay had 38·14 per cent., Calcutta 39·29 per cent., Rangoon 6·44 per cent., Madras 5·27 per cent., and Karachi 4·95 per cent., of India's total foreign trade in merchandise and treasure. The greater part of the trade in treasure belongs to Bombay; in merchandise Calcutta was considerably ahead of Bombay, the former showing 72 millions and the latter 52 millions as the total value of their export and import trade, the figure for Bombay having decreased eight millions as compared with the previous year.

The net imports of treasure were above those of the previous year. The statistics for 1897–98 show a net importation of Rx. 1,382,000 of treasure into India, as compared with a net import of Rx. 8,147,000 in 1896–97, Rx. 9,108,000 in 1895–96, Rx. 1,355,000 during 1894–95, and Rx. 14,361,000 during 1893–94. The 5 per cent. duty on silver imports yielded Rx. 434,000 of customs revenue, as compared with Rx. 326,000 in the previous year. The net gold importations were valued at Rx. 4,908,000, as compared with net gold imports of Rx. 2,292,000 in 1896–97, Rx. 2,526,000 in 1895–96, and Rx. 4.974,000 in 1894–95.

MANUFACTURES.

MANUFACTURES.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products of British factories. Meanwhile, without any protection, favour, or advantage other than is afforded by cheap Indian labour and by the production of raw materials in India, an important manufacturing industry has been growing up, and steam power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. Steam power is also largely employed in factories on tea gardens and indigo estates. General.

At the end of the year 1897–98 there were 163 cotton mills worked by steam, of which nine were opened and three were not worked at all during the year; 114 of the mills were in the Bombay Presidency; and the whole represented a nominal capital of more than Rx. 15,000,000. Fourteen of the mills are situate in Feudatory States or in French territory. The cotton mills employed a daily average of over 148,000 hands. They contained 36,946 looms and 4,210,756 spindles. The cotton mills of India are said to have used during the year 4,646,000 cwts. of cotton. This industry dates from 1851, when the first mill was started. Eighteen years ago there were in India 58 cotton mills, employing 39,537 hands, working 13,307 looms, and 1,470,830 spindles, and representing a capital of Rx. 5,300,000. The industry has thus increased nearly threefold since the year 1879.

Information regarding the working of these mills is available only for the factories in British territory. The output of yarn, so far as reported, during the last three years was:—

	Counts above 20s.	Lower counts.	Total.
1895–96 -	41,858,000 lbs.	390,494,000 lbs.	432,352,000 lbs
1896–97 -	55,301,000 „	367,884,000 „	423,185,000 „
1897–98 -	62,543,000 „	400,053,000 „	462,596,000 „

The Bombay Presidency produced 70 per cent. of all the yarn; Bengal, 9 per cent.; Madras, a little over 7 per cent.; the North-West Provinces, 6 per cent.; and the Central Provinces, 4 per cent. The proportion of higher-count yarns, 13½ per cent. of the whole, was larger than in the previous year. The plague in Bombay city had seriously affected production at the end of 1896–97, but

MANUFACTURES.

with the abatement of the epidemic and the return of the mill-hands the industry recovered in the second quarter of 1897-98. The out-turn of the Bombay mills was 7½ per cent. above that of 1896–97, and slightly in excess of that of 1895-96. The production of woven goods by mills in India was 91¼ million lbs., of which 73½ million lbs. were from the Bombay Presidency. There is hardly any weaving done by factories in Bengal; Madras and the Central Provinces each contribute 6 per cent. of the woven goods. These goods are mainly unbleached grey fabrics; only in Madras did any material portion of the weaving consist of finer goods, and there these fabrics were 21 per cent. of the production.

The number of jute and hemp mills was 34, excluding one closed early in the year owing to damage by earthquake, as compared with 32 in the previous year; all but three (of which one is in the French settlement of Chandernagore) are in Bengal; of the other two, one is at Cawnpore, and the other—the only hemp mill—is at Vizagapatam. The capital employed by these mills is about Rx. 4,900,000. They employed 96,000 hands, on 13,615 looms and 274,907 spindles. In 1879–80 the corresponding figures were 22 mills, 27,000 hands, 4,946 looms, and 70,840 spindles. There were five woollen mills at work at the end of 1897, containing 19,856 spindles, and 548 looms, and producing goods valued at more than Rx. 250,000 a year. The fabrics consist chiefly of blankets, serges, and cloths worn by the Army and the police.

There are about 74 large rice mills for husking and cleaning rice, and about 65 large saw mills, most of which are in Burma, employing about 48,000 hands; the amount of white or fully-cleaned rice produced by the rice mills continues to increase. Of the ten paper mills in India, one at Gwalior and another at Bombay were not worked during the year. For seven out of the ten factories the nominal capital was Rx. 627,000. Most of the paper used in Government offices is now obtained from Indian mills; and the value of papers imported into India in 1897-98 was Rx. 322,000 as compared with Rx. 378,000 in 1896–97. The produce of the ten paper mills was 39 million lbs. in weight in the year 1897, against 41 million lbs. in 1896 and 18 million lbs. in 1887, and it was valued at Rx. 568,000 The paper factories employed 3,532 hands, and the materials they used. were chiefly moonj grass, jute and hemp cuttings, straw and rags of different kinds. Small paper works, making common paper without machinery, exist in several provinces, but for these petty industries no statistics are available. In 1897 there were 26 breweries at work, which produced during the year 5,309,000 gallons of beer and porter, or 1,004,000 gallons less than they yielded in the previous year. The Commissariat Department bought 2,589,000 gallons of this malt liquor, as compared with 3,385,000 gallons purchased in 1896, for the use of European soldiers. The largest brewery was at Murree in the Panjab Himalayas, and the output of that concern was 747,000 gallons in 1897. The quantity of beer imported into India averaged 2,970,000 gallons a year during the past three years, or more than one-half the quantity produced in the country.

Among other "large industries," which are shown in the Indian Returns for 1896, may be mentioned:—

Silk mills	7	Oil mills and wells	174
Soap factories	23	Flour mills	72
Tanneries	151	Ice factories	41
Iron and brass foundries	86	Pottery and tile factories	109
Sugar factories (large and small)	96	Bone-crushing factories	16
Coffee works	56	Tobacco and cigar factories	42
Cotton ginning factories, cotton presses, and jute presses	674	Silk filatures	68
Cotton and woollen spinning and weaving establishments, not classed as mills	20	Glass factories	4
Rope factories	18	Saltpetre refineries	1,745
Cutch and lac factories, large and small	134	Dye works	7
		Indigo factories, large and small	7,612
		Jute presses	91

In the ensuing paragraphs the figures given are, wherever it is possible, those for 1897–98; but in some cases the information has not been received, and the figures for 1896–97 are given. MANUFACTURES.

Bengal. Bengal contains jute mills, cotton mills, paper mills, collieries, iron and brass foundries, including the only large ironworks in India, and the largest pottery factory in India, besides factories for lac, sugar, rope, indigo, and saltpetre, tanneries and foundries. The coal output of 1897 was larger than ever. The mica industry and the large pottery works at Ranigaṅj continued to do well, and the Barrakur iron works made an important forward movement, the sales of pig-iron and castings having been valued at Rx. 123,000, against Rx. 75,000 in 1896–97 and Rx. 44,000 in 1895–96.

A "Monograph on the Cotton Fabrics of Bengal" was prepared under the orders of Government, from which the following facts are taken:—Hand-loom manufacture of cotton continues to decline, and exports are insignificant; only special cloths, of Dacca, Fareshdanga, or Santipur, or else very coarse cloths, are now woven to any extent. These are made in most cases from machine-made thread. In the census of 1891, over a million persons were found to be dependent on the cotton industry of Bengal, being far more than for any other industry. But it is reported that the numbers are steadily decreasing. A great number of the weaver class have taken to other pursuits, and the indigenous spinning industry has been all but annihilated.

North-West Provinces. Among native industries in the North-West Provinces, brass-work, stone-quarrying and stone-carving, and weaving, are the most important; but these Provinces, which contain more large cities than any part of India, possess a great number of flourishing arts and crafts. The ordinary industries supply for the most part only local needs. There are six cotton mills, four of them at Cawnpore, which in 1897–98 contained 1,638 looms and 257,622 spindles, giving employment to 7,496 persons.

Punjab. In the Punjab there are few large industries apart from agriculture. As has been mentioned in previous Statements, the Punjab Government published during the four years 1889–92 monographs on some one of the principal indigenous industries of the Province, namely, upon the brass and copper industries, upon work in gold and silver, upon the fibrous plants of the Punjab other than cotton, and upon the leather industry. The large industries of the Punjab are, one woollen and four cotton mills, two breweries, 64 cotton pressing and ginning factories, seven flour mills, one large sugar concern, and five iron foundries.

Burma. The large industries of Burma are 70 rice mills, 42 saw mills, one petroleum refinery, and three ironworks for working imported iron and steel, not for smelting iron ore, one cotton press, and one oil press. All these are worked by steam. There are also three shipbuilding yards and six cutch factories. Among the more important local and indigenous industries are boat-building, weaving, gold and silver work, wood-carving, cigar-making, *ngapi* or fish-curing, pottery, lacquer-work, brass-work, and marble-work.

Central Provinces. The large industries of the Central Provinces are six cotton mills, of which one is situate in the chiefship of Nandgaon, and another—the Empress of India Mill at Nagpore—is the most successful concern of its kind in India. They contain 1,708 looms, and 124,610 spindles, and employ 6,930 persons, of whom 4,830 are adult males; 18½ million lbs. of yarn and 5 million lbs. of woven goods were produced during 1897–98, 14 per cent. of the yarn being of counts above 20; the output, as compared with the previous year, showed a slight increase. Besides the cotton mills, 28 other steam factories, including two collieries, were at work during the year. The usual domestic industries are practised in the Central Provinces; but there has been no revival of the cottage industry in embroidered or fine cloths for which the Nagpur country used to be celebrated.

Assam. The production of tea continues to be the first industry of Assam; the area under mature and immature tea plants increased in 1897 to 310,500 acres, or

MANUFACTURES.

18,600 more than in the preceding year; the average out-turn of the year, according to the official return, fell from 443 to 408 lbs. per acre over the whole tea-producing area, the total out-turn being 107¼ million lbs., or 2 per cent. less than in 1896; prices of Assam tea in the Calcutta market ruled lower during 1896 than in the previous year; this was the third consecutive year in which prices fell. The number of persons, inclusive of children, working on tea-gardens in Assam is returned at 478,200 against 465,200 in the preceding year; the number of labourers who immigrated into Assam during the year 1897 was 95,900, as compared with 81,000 in 1896; the death-rate among all classes of labourers and their families rose from 32·0 per thousand in the previous year to 41½ in 1897; and the proportion of unhealthy gardens from 5·7 to 14·7 per cent., the year being a very unhealthy one throughout the province. The manufacture of tea-boxes is carried on to some extent under a royalty system; but there was no satisfactory growth of the industry in 1897–98. The output of Assam collieries decreased 3 per cent. to 171,000 tons, and the output of the Sylhet lime quarries, owing to the destruction of the railway by the great earthquake fell to 692,000 maunds in 1897–98.

Madras.

Weaving continues to be the most important domestic industry in Madras, though it has greatly declined under the competition of machine-made goods. A monograph on the woollen fabric industry, published in 1898, shows that though the demand is maintained, it is not for the best class of carpets and rugs. The chief seat of the industry is Ellore. Eleven cotton mills in the Presidency employed 12,000 hands during 1897–98, who worked 1,705 looms and 274,254 spindles. One mill for weaving hempen bags ran 98 looms and 2,084 spindles. The number of cotton presses in the Presidency was 48. Forty coffee-curing works turned out in 1896 cleaned coffee to the value of Rx. 1,586,000. The tanneries of Madras, Madura, Bellary, and Vizagapatam produced large quantities of good leather. Twenty-six factories in South Canara, Tinnevelly, and Malabar made large quantities of tiles and cement, and employed about 4,000 hands. Forty-one cigar factories were at work in the Godavari and the southern districts, and turned out Rx. 74,000 worth of cigars. Indigo is made on a small scale and of inferior quality at some hundreds of vats, and was exported in 1897–98 to the value of Rx. 1,066,000 against Rx. 994,000 in the previous year and Rx. 1,402,000 in 1895–96. Sugar was made on a large scale at six factories, at some of which considerable quantities of rum were distilled.

Bombay.

In the Bombay Presidency there were 343 steam factories at work at the end of 1897, of which 130 were situated in the city of Bombay; at these factories 140,000 hands were employed. The spinning and weaving mills were 133 in number, 11 more than in 1896–97, besides 25 more that were projected. Allusion is made below to the exodus of factory hands in the winter of 1896 from Bombay owing to fear of the plague. In 1897 this happened again, though not to the same extent; and the exports of yarn and piece-goods from Bombay suffered, on this account and because of overstocking in the China market, a considerable fall. In addition to the workshops belonging to the railways and the great steamship companies, 14 factories in Bombay and Sind turn out ironwork of all kinds. Among other large factories using steam are dye-works; woollen-weaving mills and wool-cleaning mills; some hundreds of cotton ginning and cleaning mills; saw mills; paper mills; bone-crushing mills; rice-cleaning mills; flour mills; and mills for pressing oil.

Of the domestic industries and manufactures conducted after native methods, the chief are hand-loom weaving and cotton-spinning, which supply the hand-woven goods still worn by the majority of the lower classes; calico dyeing and printing, gold and silver lacemaking, the making of silk, and of garment pieces partly of silk for women's wear, the weaving of cotton and woollen carpets; brocade work, and embroidery of gold and silver, for which Guzerat, Nasik, and Sind workmen are specially renowned; the making of glass bangles or bracelets; wood-carving, the art speciality of Guzerat; and sculpture, which is practised in Cutch and Kathiawar; in these three provinces also silver work is done of a special kind and of much excellence. In many parts oil for domestic use, for soap-making, for lubricating machinery, and for lamps is

expressed by labour of cattle and men from castor-beans, sesame, rape-seed, poppy-seed, mhowra (or mhowa) nuts, linseed, ground-nuts, and cocoa-nuts. Cotton-seed oil and cake are made on a small scale and to a limited extent; but as yet no large factory for utilising surplus cotton seed in this way has been started. MANUFACTURES.

The only large factory in Berar is the steam mill at Badnera, where yarn and cotton cloth are manufactured. It produced 5,796 bales of 400 lbs. of twist and yarn, and 2,442 of cloth, against 3,892 and 2,339 respectively in the preceding year. The number of persons employed in this factory was 1,172 as compared with 1,212 in the previous year. There are altogether 31 steam cotton presses and 80 cotton ginning factories in the province. The two oil presses at Amraoti produced 236,000 gallons of oil, or 22 per cent. more than in 1896-97. The domestic industries of Berar are the weaving of silk, cotton pieces with embroidered borders, cotton carpets, coarse cotton cloth and garment pieces, turbans and blankets. Berar.

FACTORY ACT.

The present Indian Factory Act came into force on the 1st January 1892. The changes introduced into the previous law were, briefly,— FACTORY ACT.

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours;

The hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day;

Hours of rest during work were prescribed for all labourers, namely, half an hour in the middle of the day for all hands; and one hour interval for women workers.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections, to have been as follows:—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1897.

PROVINCE.	Number of Factories working, and liable to be inspected.	Number of Inspections in the Year.	Average Number of Hands employed daily.				Number of Factories.				Number of Persons convicted of breach of Act.	Number of Accidents Reported.			
			Men.	Women.	Children.	Total.	With Sunday Holiday.	With other Weekly Holiday.	Exempted from Sunday Stoppage.	Worked otherwise.		Fatal.	Serious.	Minor.	Total.
Bengal	170	646	131,754	21,170	13,894	166,818	117	4	28	18	1	18	320	313	651
North-Western Provinces.	60	349	22,974	1,279	1,287	25,540	44	9	5	2	–	6	27	84	117
Punjab	107	293	10,339	1,750	677	12,766	72	13	7	15	2	2	4	37	43
Burma	123	485	23,755	521	25	24,301	117	3	3	–	3	6	31	23	60
Central Provinces	35	140	7,821	2,029	509	10,359	14	18	–	3	–	3	18	20	41
Madras	71	316	26,089	2,893	2,216	31,198	63	7	1	–	1	2	25	155	182
Bombay	322	1,884	106,780	26,930	6,669	140,379	251	69	2	–	6	17	103	1,079	1,199
Assam	11	17	1,224	386	128	1,738	11	–	–	–	–	–	–	–	–
Ajmere	3	19	562	318	19	899	1	2	–	–	–	7	1	12	20
Berar	79	683	4,404	2,994	149	7,547	32	47	–	–	1	–	–	1	1
TOTAL, 1897	981	4,832	335,702	60,271	25,572	421,545	722	172	46	38	14	61	529	1,724	2,314
TOTAL, 1896	917	3,448	315,126	58,829	23,988	398,243	687	153	48	28	13	56	446	1,681	2,183

The largest number of factories is in the Bombay Presidency, and 130 are in Bombay city alone. In Bombay all working factories, except one, were inspected during the year, and nearly all were inspected once a quarter. The sanitary condition of factories is said to be mostly fair or satisfactory; the supply of drinking water and the conservancy arrangements were sufficient; ventilation in some of the Bombay city mills requires improvement, Bombay.

FACTORY ACT.

and arrangements for removal of cotton dust in weaving and spinning rooms are inadequate. In the early part of the year 1896–97 there was a great exodus from Bombay, caused by fear of the plague, and the factories, though for the most part they continued to work, were kept shorthanded. A system of daily wages was temporarily introduced, and a bonus given, to attract labour; but it was not until April that the mills filled again, and the conditions of the labour market were unsettled for the greater part of the year. As a result of this, the average number of men employed in Bombay city fell 6 per cent., and of women 18·5 per cent., as compared with the previous year. Elsewhere, however, there was improvement, and the total daily average of operatives employed in factories throughout the Presidency is above that of 1895, though about 4 per cent. below that of 1896. The normal wages earned in factories throughout the Presidency are said to be 4 annas for a man per diem, 3 annas for a woman, and 2 annas for a child. One anna is equal to a penny. The wages are punctually paid. As stated above, there was some increase above ordinary rates for some part of the year in Bombay city. Factory labour is said to be attractive, and the condition of the hands is reported to be a little better than that of an ordinary cultivator. An interesting experiment is being made by certain mills in Bombay of housing the workmen employed by them. There was an increase in the number of fatal accidents, as compared with the previous year; the number of all accidents was about the same: the fencing of machinery and other precautions against accidents are reported to be satisfactory.

From Bengal it is reported that, during the year 1897, all factories were inspected, and that 105 were inspected three or more times. The rules were found to be generally observed; water-supply, sanitary arrangements, ventilation, fencing of machinery, and employment of children were generally satisfactory. Suggestions made by inspecting officers received prompt attention. In some cases children under age were found to be employed contrary to law, and the necessary action was taken to stop the practice. The housing of operatives and the sanitation of their quarters are being improved. Wages are regularly paid, and average per diem $2\frac{3}{4}$ annas for men, $1\frac{1}{4}$ annas for women, and 1 anna for children, which is generally higher than agricultural wages in the provinces. The question of early closing on Saturday in jute mills, so as to secure a rest on Sunday for European employés, has not yet been settled. Nearly all the jute mills have now electric light installations.

In Madras medical inspection and professional inspection of factories were satisfactorily performed; no factory was left uninspected. In almost all cases the sanitary arrangements, the condition of the factories, and the health of the operatives were found to be good. Machinery was generally fenced, and there was a satisfactory decrease in the number of accidents.

From the North-West Provinces it is reported that all factories except one were duly inspected, and that the sanitary condition of factories was found satisfactory generally. The health of operatives was good, and did not suffer from the prevailing high prices of food grains. The law and rules for the prevention of abuses were observed.

From the Central Provinces it is reported that all factories were duly inspected; only seven factories employ children at all. The law about holidays and rest is observed. The health of the hands was good and sanitation received due attention. Factory hands are said to be better off than ordinary labourers, and the employment is eagerly sought after.

In Burma the number of operatives increased 33 per cent. as compared with 1896, the increase occurring in Rangoon. All but two of the factories were inspected during the year. The health of the operatives was good, and their condition was prosperous. Reasonable progress was made in improving the sanitary condition of factory premises. Of the accidents six were fatal; and the majority occurred in saw-mills at Moulmein.

In the Punjab all but seven of the factories were inspected, and defects in sanitary arrangements were remedied. Generally, the sanitary conditions were reported satisfactory, and the health of the operatives good. The machinery was properly fenced, except in one instance, in which suitable orders have been issued.

CHAPTER XV.

FRONTIERS, NATIVE STATES, TRANSMARINE INTERESTS, ARMY AND MILITARY OPERATIONS.

FRONTIERS. The Punjab Frontier.

THE year 1897–98 was one of widespread disturbance on the North West border, the tribes combining in a more formidable coalition against the British Government than any that had been known since the annexation of the Punjab. In his despatch (see page 172 of Volume II. of the Parliamentary Papers, C. 8,714 of 1898), reviewing the events of the frontier, the Secretary of State pointed to religious excitement and fanaticism as the main cause of the outbreak, while he was inclined to attribute in some measure to the recent delimitation of the Afghan frontier the alarm and jealousy of the tribesmen on which this fanaticism was able to work.

But whatever the causes, the disturbances began with the treacherous attack by the Madda Khels on the Political Officer's escort at Maizar, in the Tochi valley, on 10th June 1897. The next outbreak occurred on the 26th July in the Swat valley, where the Yusufzai clans, aided by contingents from Boner on the east and the Utman Khel on the west, made a desperate attack on the British position at Malakand and the Chakdarra post on the road to Chitral; after several days' severe fighting the tribesmen were beaten off with a loss estimated at 3,700 men. Next the hostilities spread west and southwards, as the Mohmands, Afridis, and Orakzais joined in the war with the Government of India. Their punishment was not long delayed; before the end of the year, the British forces had visited and traversed their country from the Boner valley to the Utman Khel and Mohmand hills and the high mountain glens of Tirah, while the Madda Khels had been similarly dealt with by the Tochi Field Force. The military operations are described in a later section of this chapter, and fuller particulars are to be found in the Parliamentary Papers above quoted.

On the tribes who joined in the hostilities the terms enforced consisted mainly of the surrender of arms and the payment of fines. In addition, it must be remembered that they lost on many occasions very heavily in fighting, and that many of their villages and forts were destroyed by the British expeditions, and their local supplies of food and grain were largely consumed by the troops passing through or encamping in their country.

The magnitude of the outbreak caused the Government of India to consider generally their policy towards the whole extent of tribal country included within the Durand line. Suggestions for annexation to be followed by direct administration and for the imposition of tribute as a visible mark of subjection were alike rejected; it was decided that no new responsibility should be undertaken unless required by actual strategical necessities or essential to the protection of the British Indian border. Extension of administrative control over independent tribal territory was avoided; while for purposes of protection and defence attention was confined to the concentration as far as possible of military garrisons and to the organisation of local militia and tribal levies. The most important change contemplated was in the arrangements for the Khaibar Pass, but on this and other kindred matters decisions were not arrived at before the close of the year under review.

Almost the only tribes within the area of disturbance whose conduct was loyal and satisfactory were those of the Kurrum valley, who for a few years past had been under British administration. East of the Indus also, the Hazara border, which had been the scene of the Black Mountain expeditions of 1888 and 1890, remained undisturbed throughout the year.

In regard to the disturbed tracts, it may further be mentioned that the Afghan soldiers who had been stationed at Mitai in the Mohmand country east of the Durand line were withdrawn by the Amir of Afghanistan early in the year under review. The Khaibar pass was closed during a great part of the year owing to the outbreak of the tribesmen, and the trade in consequence suffered. But on the Malakhand-Dir-Chitral road the trade showed a large increase, both before the outbreak, and to an even greater extent when the road was reopened after the hostilities were ended. The passage of the reliefs for the Chitral

FRONTIERS. garrison, both in 1897 before the attack on the Malakhand occurred, and in 1898 after the close of the year under review, were carried out without any difficulty or opposition. After the disturbances, the levy posts along this road were restored, and the levies worked satisfactorily. There have since been rumours of fresh outbreaks in contemplation by the tribes, but the rumours have passed away without a breach of the peace. Occasional local fighting occurred owing to disputes between the Khan of Nawagai and Pashat Khan, and between the former and the Nawab of Dir, but the relative positions of parties in Bajour and Swat was not much changed in consequence.

Chitral. In Chitral the year was peaceful. Cultivation was extended, and the efforts of the Political Agent were exerted in favour of the cultivators to secure for them some fixity of tenure and some protection from the oppressive treatment of which they complained.

Gilgit. In the Gilgit Agency the situation was undisturbed. Some distress was caused by the deficiency of harvests in Ashkuman, Ghizar, Koh, and Yasin, and by the reappearance of foot and mouth disease. Chilas was more prosperous, cultivation increased, and contentment prevailed. The amount of the Chilas tribute to Kashmir was fixed, and the settlement willingly accepted by the population. The Chilas road to the Babuzar pass was completed. The principal reform carried through in the Gilgit Agency during the year was the institution of the police levy scheme. The regular troops of the Kashmir State were concentrated, and the outlying posts from which the scattered detachments were withdrawn were handed over to tribal levies. The scheme is working satisfactorily.

Hunza and Nagar enjoyed good harvests. During the year an arrangement was arrived at between the Kanjutis and the local Chinese officials, under which the cultivation of part of the Raskam valley within the Chinese frontier by inhabitants of Hunza was permitted.

Chinese Turkestan. In Chinese Turkestan the efforts of the British Government in favour of the abolition of slavery, were brought to a successful conclusion. A proclamation was issued by the Governor prohibiting the keeping or selling of slaves within the province. Upwards of 2,000 slaves, of whom 500 were of Indian origin, have, during the past four years, been set at liberty in Chinese Turkestan.

Baluchistan. The principal event in the Baluchistan Agency during the year, was an outbreak in Mekran, where a survey party under British officers was attacked in January 1898. Before the end of the month a small punitive expedition had landed at Ormara, and defeated the rebels, most of whose leaders were killed. The country was rapidly pacified, and on the return of the British force, Kalat State troops remained to ensure order. Some outrages also occurred in the neighbourhood of Quetta, which were apparently prompted by the Raisanis, to express their dislike of the decision given by the Political Agent, in the matter of their dispute with the Rustomzai Sirdars. The chief perpetrator of the outrages escaped to Afghan territory. The local unrest was only allayed after the arrest and temporary confinement of two of the Raisani leaders. They were subsequently released on furnishing security for their loyalty; and the year ended in tranquility. Other unfortunate incidents during the year, were outrages by the Largha Sheranis and the murder of Lieut. Col. Gaisford by a fanatic. There was also some unrest among the Marris and Bugtis. On the former a fine was imposed for the outrage at the Sunari railway station, referred to in last year's report. Migration to Afghan territory was resorted to by many of the malcontents of the Agency, but a large proportion of these returned after a brief period, having failed to get the grants of land in Afghanistan which they had anticipated.

The revenue of Baluchistan in 1897–98 amounted to nearly 10 lakhs, and the expenditure exceeded 20 lakhs. Under the quasi-provincial contract the Governor-General's Agent received a yearly grant from the Government of India of nearly 12½ lakhs. The balance at his disposal was thus increased during the year by two lakhs. The year was not a prosperous one for the people, owing to poor harvests and high prices. Some relief had to be given.

Reference was made in last year's report to the opening of the new trade route between India and Persia, through Quetta and Nushki to Seistan.

Improvements were made during the year by a change in the line of road, by better arrangements for the levy posts, by organising a postal service, and by making new wells or deepening old ones. In consequence trade increased very largely, notwithstanding the hindrance imposed upon it by quarantine arrangements in Persia. FRONTIERS.

The Financial position of the Kashmir State is indicated by the following figures:— Kashmir.

	Receipts.	Expenditure.	Surplus.
	Rx.	Rx.	Rx.
1896-97 (Accounts) - -	651,105	611,349	39,756
1897-98 (Revised Estimate) - -	630,300	586,500	43,800
1898-99 (Budget Estimate) -	674,500	599,000	75,500

In addition as stated in last year's report, there is a large sum belonging to the Darbar held as a cash balance and in Government securities. To these it was intended to add in 1898-99 by the sale of State jewels to the value of 5½ lakhs, and the investment of the proceeds. Particular features that are to be noticed in the estimates for 1898-99 are the large increase in the Customs revenue, due to the assumption by the Darbar of the Customs administration, which was formerly farmed, and an assignment of 2½ lakhs of expenditure to the silk industry, an outlay which is expected to prove highly profitable to the State in the future. With the completion of the Gilgit road and of the Srinagar waterworks, the reduction and reorganisation of the military forces of the State, and more economical commissariat arrangements, the heavy military and public works outlay has been much reduced in recent years.

The great confusion caused by the condition of the local Kashmiri currencies and their instability relatively to British rupees, which were also legal tender in the State, was got rid of in 1897 by the decision to withdraw the local currencies and to adopt the British coinage. The State agreed to suspend for 50 years its right to coin rupees, and the Government of India agreed to give the Darbar British rupees in exchange for the old Kashmiri coins, which were accepted at a value much above their bullion value. The arrangement was one advantageous to the trade of the country. The required coinage for Kashmir was completed by the Indian mints in the year 1898-99.

A considerable charge was imposed on the State in addition to the Budget estimate of 1898-99 by a destructive fire in Jammu, in which many of the public offices were destroyed. Of the political situation and of the condition of the people in Kashmir during the year under review, no report has been received.

No change is reported for the year 1897-98 in regard to the condition of affairs or of the people of Nepal. Relations with the Government of India were friendly and satisfactory as usual. Nepal.

The Chinese Amban arrived at Lhassa in February 1898, deputed to deal with the question of the Tibet-Sikhim boundary; but no progress was made during the year 1897-98 towards the settlement contemplated by the Convention of 1890. Notwithstanding the obstruction of the Tibetans trade across the frontier shows some advance:— Tibet and Sikkim.

	1894-95. (For 11 Months.)	1895-96.	1896-97.	1897-98.
	Rs.	Rs.	Rs.	Rs.
Imports into British territory -	6,38,954	7,07,063	7,90,634	8,79,720
Exports from British territory -	6,16,756	8,61,087	8,88,017	8,23,340

FRONTIERS.

The general administration of Sikhim is creditable. There was peace, contentment, and financial stability, and practically no crime. The Raja's palace and many of the Buddhist monasteries in the country suffered damage from the earthquake of June 1897. The receipts and expenditure of the State were as follows :—

	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Receipts - -	5,702	7,885	7,434	9,075	10,981	9,985
Expenditure - -	5,749	6,026	7,089	11,288	11,839	7,697

Bhutan.

As regards Bhutan there is nothing to report, except a border raid in which a Bhutia lost his life.

Assam Frontier and Manipur.

The tribes on the Assam border generally behaved well, and there was no military expedition. The blockade of the Abors for past offences continued during the year. In the Naga country a raid of one village on another occurred in which 17 lives were lost. A fine was imposed on the offending village, and in default of payment the village was burnt.

The minor Raja of Manipur and his half brother remained during the year at Mayo College for their education. Meanwhile the State was prosperously administered. The harvest was good, and prices were low. The revenue realised Rx. 34,671, of which Rx. 29,813 were spent. The Kohima-Manipur cart road was opened during the year. No serious damage was suffered in the State from the great earthquake of June 1897.

Lushai Hills.

On 1st April 1898, not October 1897, as stated in last year's report, the North and South Lushai Hills were combined in one charge under the Assam Government. The expenditure on the two areas in 1897-98 and in the two previous years was as follows :—

	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
North Lushai Hills - - -	53,706	50,549	47,425
South Lushai Hills - - -	50,475	41,245	28,979

The large diminution of expenditure is due to a reduction of the police force and the abandonment of the Fort Tregear post. The principal requirement of the tract is the opening up of communications by new roads and tracks. Trade shows signs of increase. In the Southern Hills the year was marked by an outbreak of savagery in the shape of witch murder, three men and one woman being killed. The principal offenders were duly tried and punished.

Chin Hills.

By the introduction of the Chin Hills Regulation on 1st June 1897, a judicial procedure of a simple kind, based on the principle of collective responsibility suited to the ideas and condition of the people, was substituted for the administration of justice by executive order. The change marked an epoch in the government of the tract. Otherwise the year was uneventful; there were no disturbances.

Kachin Hills (N.E. Frontier of Burma).

The record of administration in the Kachin Hills during the year 1897-98 has been more eventful than in recent years. The most important event of the year was the meeting for the first time of the Burma-China Boundary Commission. The demarcation of the boundary north of the Taping river was satisfactorily carried out. But south of the Taping, owing to differences of opinion between the British and the Chinese Commissioners, matters came to a deadlock and no progress whatever was made in delimitation. The Shan Chief on the Chinese side took advantage of the unsettled state of affairs. Matters culminated in the action of the Kangai and Möngwan *Sawbwas* who

sent armed parties across the Manting stream and erected stockades at Sadôn, Sengmyè, and Maipat, in territory under British administration. It was necessary to take decisive action to resist this aggression; two of the stockades were attacked and captured, the third being evacuated. Four of the defenders were killed and 19 taken prisoners. In view of these incidents two military police posts were established at Pansè and Lwèlôn on the frontier. FRONTIERS.

An *émeute* of a somewhat serious nature also occurred in the north of the Katba district, which is addicted to the harbouring of outlaws. A small detachment sent to enforce a demand for the surrender of arms was treacherously attacked, and the tribe rose in revolt. The rising was promptly suppressed.

A change in the method of administering the frontier tribes was inaugurated in 1897–98. Instead of relying solely on the annual tours of civil officers during the open season, officers were for the first time permanently stationed at Sinlumgaba in the Bhamo district, and at Sadôn and Kamang. The change is said to work well.

Throughout the Kachin Hills the policy of exacting a light tribute, of disarming the tribes, and of making roads for the improvement of communications and trade was continued.

The Northern Shan States consist of five large States, the Southern group of 40, mostly petty States. Except for a small outbreak in the Mongsha State of the southern division the year was one of tranquillity, general prosperity and steady progress. Harvests were good and with the continued improvement of the roads, trade expanded. There was little crime. The tribute was easily paid. Forest administration was placed on a better footing; the cultivation of wheat has been successfully introduced, and there is promise that it will become a staple product of the country. A great Darbar at Lashio disposed of many disputes in the Northern States and led to various reforms. In Kengtung, the largest of the Southern States, a first census was taken, showing a total of 23,000 houses, and the budget system was introduced, as it has been in most of these States. The State of Manglun which is on the extreme frontier still remains the least affected by British control. Its eastern borders were troubled by invasion of Was, a wild tribe beyond its limits. Shan States.

In an earlier paragraph reference was made to the proceedings of the Burma-China Boundary Commission. The only other matter of interest in regard to the relations between Burma and China was the institution of a British Consulate at Ssumao, at which place the trade has, however, proved to be of less importance than was anticipated. China.

Relations with French territory beyond the Mekong or with Siam during 1897–98 call for no comment. France and Siam.

NATIVE STATES.

The population of the Native States, based on the census of 1891, may be taken at 66½ millions, and their aggregate revenue at 21½ crores of rupees, their aggregate tribute to the Government of India amounting to Rx. 884,000. The number of their military forces, excluding Nepal, is now returned at 92,000, mostly ill armed and ill trained men. The larger totals given in previous returns included bodies of men with practically no military character or organisation. NATIVE STATES.

Of the military forces of these states, a portion consists of Imperial Service troops organised to take part in military operations in line with those of the Indian army. The strength of these specially organised corps was on 1st August 1898, 17,782, as shown in the margin, the total in the previous year being 18,463. The maintenance of these troops costs the States concerned about Rx. 600,000, the outlay of the Indian Government on their organisation and inspection being about Rx. 20,000. The Imperial Service troops employed during the recent operations on the frontier were the infantry battalions of Patiala, Jind, Nabha, and Kapurthala, the Imperial service troops.

Cavalry	7,857
Artillery	303
Sappers and Miners	324
Infantry	7,734
Camel Corps	500
Transport Corps (men)	1,064
Total	17,782

NATIVE STATES.

sapper corps of Sirmur and Maler Kotla, and the transport trains of Jaipur and Gwalior. Moving out of their States with commendable celerity, they joined the field army with transport and equipment complete, and all corps were excellently reported on by the general officers under whom they served. On the whole, the scheme of the Imperial Service troops is held to have attained a fair measure of success. Most of the corps, whether those employed on the frontier or not, are favourably reported on. Some changes are being introduced, such as the increase of the number of transport corps. In the year under review Mysore undertook to establish a transport corps, to be balanced by a reduction in the strength of her mounted corps. The reorganisation of the Kashmir troops has been completed.

Dacoity.

The suppression of dacoity in the Native States is a matter of imperial concern, and at times necessitates interference on the part of the paramount Power, particularly in those tracts of Native States' territory where the jurisdictions of the Chiefs are much intermingled, and where the dacoits have, therefore, great advantages in organising their crimes with comparative impunity. For the State of Hyderabad and the large Agencies of Central India and Rajputana there has long existed an organisation connected with the Government of India, charged with the duty of suppressing thuggee and dacoity. The agencies of this Department worked during 1897-98 in complete harmony with the durbars and the political officers. There was no interference on their part with the internal administration of the States in criminal matters. The number of cases reported by the Department has very largely increased, the totals in the four years ending with 1897 being respectively 389, 448, 684, and 1,152. But it is stated that a considerable proportion of the cases are not really dacoities, but petty robberies committed by persons in want of food, and 1897 was a year of great scarcity. The quantity of serious crime is said to be diminishing everywhere.

Hyderabad and the Assigned Districts.

The following are the principal figures of the finance of the Hyderabad Assigned Districts for the last eight years :—

YEAR.	Gross Land Revenue.	Total Revenue.	Expenditure.				Total Expenditure.	Surplus of Revenue over Expenditure.	Payments to His Highness the Nizam.
			Public Works.	Civil Administration.	Military.	State Railways.			
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
1890-91	652,474	1,009,595	118,530	394,531	337,606	8,605	859,272	150,323	146,478
1891-92	639,976	1,027,632	110,532	410,757	378,424	9,489	909,202	118,430	130,697
1892-93	625,944	985,448	121,177	416,095	361,597	9,123	907,992	77,456	83,104
1893-94	637,390	1,017,475	109,966	432,531	392,819	8,567	943,883	73,592	65,000
1894-95	643,312	1,011,949	110,696	446,493	397,472	10,381	965,042	46,907	116,205
1895-96	680,905	1,044,825	102,131	433,453	384,796	12,059	932,439	112,386	29,173
1896-97	667,563	1,007,556	81,189	456,046	404,306	9,794	951,335	56,221	72,481
1897-98	685,143	992,346	71,614	483,272	439,142	10,680	1,004,708	*—12,363*	—

For the first time since 1861 there was no surplus, and consequently no payment was made to the Nizam. A large portion of the increase of military expenditure was due to the famine prices prevailing, and under other heads also scarcity and distress added to the cost of administration. The land revenue, however, showed no diminution.

The finances of the Nizam's Government suffered during the year both from the absence of any surplus in Berar and from famine expenditure in the State itself. The necessity of reforming his financial administration was pressed upon His Highness. For a time he relied upon a special committee of nobles appointed for the purpose; but finally he decided to accept the services of a European adviser as Comptroller-General for a period of three years. The Nawab, Sir Vikar-ul-Umra, continued to be the Nizam's Minister, and his powers in the administration were, after the close of the year under review, rendered more definite by certain rules laid down by the Nizam for the improvement of

the administration of his dominions. The expenditure of the year was about four crores. NATIVE STATES.

The following statistics of the revenue and expenditure in Mysore are taken from the Dewan's Memorandum of Moral and Material Progress and Condition of the State for the year 1897-98 :— Mysore.

RECEIPTS.	Rx.	EXPENDITURE.	Rx.
Land Revenue	979,413	Interest	21,668
Mining Leases	131,456	Land Revenue	175,716
Forests	111,574	Forests	44,986
Excise	337,176	Excise	24,784
Assessed Taxes and Sayer	54,395	Administration	81,088
Stamps and Registration	94,166	Palace	140,000
Interest on Investments	52,218	Law and Justice	98,168
Mysore State Railway Earnings	90,087	Police	91,002
Other Receipts	65,492	Education	54,343
		Tribute and Assignments	375,413
		Military	103,022
		Public Works and Sanitation	265,500
		Railways, Guaranteed Interest	79,311
		Railway Construction and Surveys	91,768
		Other Expenditure	208,321
TOTAL - - Rx.	1,915,972	TOTAL - - Rx.	1,855,090

The amount of gold produced by the Mysore mines continues to increase ; in 1897-98 it exceeded 389,700 oz., valued at Rs. 2,32,14,000. A new Mysore Mines Regulation was passed during the year and rules issued in connection with it. Three other regulations were passed, of which the most important dealt with village sanitation. The season was not favourable to the cultivators, and prices were high, but the State was not afflicted with famine. There was some increase of crime. The assembly of Representative Raiyats and Merchants held its usual brief session from the 8th to the 13th October 1897. It consisted of 275 persons, of whom 252 were Hindus. The Dewan, as usual, addressed the assembly, and 529 subjects are reported to have been subsequently brought forward and discussed in that period. No laws are passed and no funds voted by this Assembly. An Administration Report for the five years ending 1894-95 was issued by the State in 1898. In the yearly published statements of the Dewan figures for later years are given in a summarised form.

The last Report on the administration of the Baroda State, published by order of H.H. the Maharaja Gaekwar, is for the year ended 31st July 1895. For that year the revenue was Rx. 1,681,461 and the expenditure Rx. 1,623,623. Baroda.

In 1897-98 Baroda shared the fortunes, and adopted the policy, of the Bombay Presidency in regard to the plague. The Agent to the Governor-General's attention was drawn mainly to matters of plague administration and to questions in dispute between the Durbar and the subordinate land- and tenure-owners, many of whom enjoy a British guarantee.

A considerable amount of silver (14 lakhs of rupees) was coined in Baroda in 1897-98.

NATIVE STATES. Rajputana.

The following is a Table of the Rajputana States, with their revenues, viz. :—

State.	Area in Square Miles.	Population in 1891.	Actual or Estimated Revenue for last Two Years.	
			Previous Year.	Last Year.
			Rx.	Rx.
Udaipur (Mewar)	12,861	1,862,478	(375,000)	(375,000)
Dungarpur	1,440	165,400	20,351	22,130
Banswara, &c.	1,937	212,269	24,148	25,379
Pratapgarh	959	87,975	42,507	40,139
Jaipur	15,349	2,832,276	665,564	669,812
Kishangarh	874	125,516	42,662	56,810
Lawa	19	3,360	(450)	(450)
Jodhpur (Marwar)	37,445	2,521,727	567,976	582,387
Jesalmer	16,039	115,701	14,133	16,061
Sirohi	1,966	188,977	38,233	42,159
Bikaner	23,090	831,955	238,257	214,606
Bundi	2,225	295,675	72,230	70,000
Tonk	1,415*	198,934*	161,890	170,124
Shahpura	406	63,646	35,188	(35,000)
Bharatpur	1,961	840,303	(270,000)	(270,000)
Dholpur	1,156	279,890	(125,000)	(125,000)
Karauli	1,229	156,587	47,747	49,330
Alwar, &c.	3,051	767,786	274,900	278,841
Kotah	3,803	526,267	241,168	278,307
Jhalawar	3,043	343,601	153,978	165,341
TOTAL	130,268	12,220,343	3,411,382	3,486,876

* Excluding the Tonk pergunnas in Central India.

Most of these States are in a sound financial position; among them Jodhpur, Jaipur, Udaipur, Bikanir, Alwar, and Kotah, are believed to have very large balances to their credit. So far as the figures are given, the expenditure on public works in Rajputana during the year amounted to Rx. 564,371, of which Rx. 531,040 came from the revenue of the above States. There was considerable outlay on railway construction, particularly on the Jodhpur section of the Shadipalli-Balotra line, and on irrigation principally in Jeypore, Bikanir, and Bharatpur. The railways and irrigation works already constructed have proved very profitable investments to the Durbars concerned.

The decision of Government in regard to Jhallawar was publicly announced in June 1897, and Kuar Bhawani Singh was selected by the Government of India as the Chief of the new State of Jhallawar. He was not, however, installed in his new position, nor was the surrender of the portion of the old State, which is to pass to Kotah, carried out till after the close of the year under review. In Marwar the year was marked by the investiture of the Maharaja with full powers, and by the restoration to the Darbar of the complete administration of the District of Mailani, in which the criminal jurisdiction had for very many years been exercised under the control of the Resident. Death removed the Maharawal of Dungarpur, who was succeeded by his grandson, Bijey Singh, and the Chiefs of Alwar, Kotah, and Bikanir married during the year.

Administration is generally favourably reported on. Currency difficulties appear to have arisen in Pertabgarh, from over-coinage in past years, and in Bundi. About 30 lakhs of rupees were coined in the Rajputana States during the year.

There were several cases of plague in Sirohi territory, the deaths numbering 138. Preventive measures were taken, the outbreak was localised, and shortly before the close of the year disappeared from the province. The sixtieth anniversary of the Queen-Empress's reign was celebrated with enthusiasm. On the occasion the salute of the Maharana of Udaipur was increased by two guns, the Maharaja of Karauli was appointed a G.C.I.E., and Maharaja Dhiraj

Sir Partab Singh of Jodhpur was invested by Her Majesty with the insignia of a Knight Grand Commander of the Order of the Star of India. NATIVE STATES.

In large areas of Central India the people had suffered severely from the effects of famine in 1896–97; but in the year under review it was found that the favourable rainfall of 1897 had produced a bountiful harvest, which obliterated the visible effects of the recent distress. All relief works were closed in October, everywhere grain was plentiful and cheap, and the area of cultivation was up to the average. All the States of the Agency remained free from plague during the year; cholera appeared in the tracks of the famine, but generally the public health was good. Central India

In last year's Report it was stated that the adoption of the British Indian currency in Bhopal was expected to be the prelude to its adoption in other States. This forecast has been fulfilled. Narsingarh, Rajgarh, Kilchipur, and others followed the example of Bhopal in 1897-98; and after the close of that year the important State of Gwalior took steps to abolish the various local currencies in the Maharaja Sindia's dominion, and to make British rupees the sole legal tender. This was done without abandoning the Maharaja's rights to coin rupees. Steps were at the same time taken to reassess the revenue in British rupees at a rate corresponding to the rate at which the local currencies were accustomed to exchange with British rupees. In Bhopal, the rate adopted for the enforcement of revenue was fixed at 100 British rupees for each 110 rupees of the assessment which used to be paid in Bhopali currency. This was the rate of exchange prevailing when the assessments were originally made.

In Rutlam, Jaora, and certain other States of the Central India Agency, to assist the introduction of the British Indian currency, a tax of 25 per cent. was imposed on the import of all silver other than Government rupees.

The expenditure of the Gwalior State for the year ended 5th June 1897 amounted to Rx. 1,208,295, the revenue falling short of this sum by 3 lakhs. In the year 1897-98, the revenue demands amounted to Rx. 1,665,176, of which, however, owing to the scarcity, only Rx. 1,212,310 could be collected. Seventy-two lakhs of arrears of land revenue were remitted on the occasion of the Queen's Diamond Jubilee. Twenty-nine lakhs were allotted for famine relief and 12 lakhs were lent to other States in Bundelkhand and Bagelkhand for a like purpose. The numbers relieved at unskilled labour and relieved gratuitously in Gwalior were respectively, in units of a day, 10,706,938 and 2,535,420.

The value of the State balances, reserve, and Government securities at the end of the year was nearly 10 crores. The revenue survey and settlement in the State is approaching completion, and, it is said, has secured great benefits not only to the State revenues, but also the zamindars and ryots. The whole administration of the State is creditably conducted under the direct supervision of the Maharaja.

Rai Nanak Chand continued to be Minister of the Indore State, and carried out his duties with care and ability. Under his administration order was maintained, the revenue was collected without difficulty, and the condition of the people were fairly prosperous. In the outlying tracts, where the scarcity has been chiefly felt, the Maharaja sanctioned grants of grain and money, which were of great benefit to the people. The Indore Mint coined nearly 13 lakhs of rupees.

Bhopal currency matters have already been alluded to. The old Minister of the State, Imtiaz Ali, died during the year 1896-97, and was succeeded by Khan Bahadur Maulvi Jabbar, C.I.E. A considerable improvement in the administration of the State is reported. The land revenues of the State amount to about 30 lakhs. An important regulation adopted in Bhopal and the neighbouring States prohibits any jagirdar or large landowner from legally incumbering his estate beyond the term of his own life. The only important Chief in Central India that died during the year was the Maharaja Lokpal Singh of Panna. The question of the succession was not decided at the close of the year. The Maharaja of Dhar died in 1898–99.

In Cooch Behar the expenditure for the year 1897–98 (Rx. 241,210) exceeded the revenue (Rx. 223,967), but the former included sums of over Rx. 10.000 for the extension of the Cooch Behar Railway, and of Rx. 15,000 Bengal.

NATIVE STATES.

in repayment of the loan from the Government of India. The system of administration in the State is essentially that of the adjoining British districts, and has been for some time under the superintendency of a retired British district officer. The short crops and high prices of the previous year were followed by a very favourable season, owing to which the condition of the people was much improved. The earthquake of 12th June 1897, however, caused widespread damage, particularly to public buildings, roads, bridges, and railway works. The consequent loss to the State is calculated at Rs. 15,26,457. The Maharaja took part in the military operations on the frontier, in connection with which he was decorated with a Companionship of the Bath, and he paid a visit to England, where his sons are being educated.

The State of Hill Tipperah also suffered from the earthquake. Otherwise it enjoyed a prosperous year, the revenue of Rx. 87,25,2 providing a considerable surplus.

In the tributary States of Orissa and Chota Nagpur the crops were good, but the season was particularly unhealthy. Cholera and small-pox were very prevalent. From the ravages of the latter disease the Raja of the small State of Korea and his whole family died. The consequent difficulty of finding a successor had not been solved at the end of the year. The Chiefs of Daspalla and Nayagarh also died during the year. The produce of the forests of these Hill States is becoming more valuable with the opening of railways and roads. Their conservancy becomes more important, and difficulties are increasing with the hill cultivators, whose traditional mode of cultivation by burning patches of forest require to be restricted. In the Chota Nagpur States the inquiry into the outbreak in Gangpur was concluded, and the principal offenders were punished. The inquiry, at the same time, indicated genuine grievances against the Raja's government; steps are being taken to ensure a better administration. The management of the Moherbhanj State, the largest of the Orissa group, is very favourably reported on.

North-West Provinces.

The year reported on (1st October 1896 to 30th September 1897) was the first complete year in which the Nawab of Rampur exercised full powers of government in his State. Notwithstanding the unfavourable season the revenue increased to Rx. 318,339. The balance of the State is very large, consisting of 221 lakhs in Government securities, a reserve of 10 lakhs in coin, and a working balance of nearly two lakhs. Measures for the alleviation of distress were undertaken by the State. The land revenue is farmed, but during the year under review arrangements were made to check the high-bidding at the auction sales. A farmer who has bid far beyond the prices indicated by the rent rolls of the village cannot but rackrent the tenants. A change in the excise system was decided on, to replace outstills by the Central Distillery. Complaint is made of continued depression in the indigo trade.

The administration of the Tehri (Garwhal) State is satisfactory. After the close of the year, 1897–98, the Council of Regency, constituted in 1891 to assist the Raja in the administration, was abolished, leaving the Raja with the full responsibility of government. The reserve balance of the State exceeded eight lakhs of rupees, the year's income of Rx. 32,129 providing a small surplus. Litigation in the State is increasing.

Punjab.

The following are the principal Punjab States and their areas, populations in 1891, and approximate revenues in 1897–98:—

STATE.	Area in Square Miles.	Population in 1891.	Approximate Revenue in 1897–98.
			Rx.
Patiala	5,419	1,583,521	685,400
Bahawalpur	15,000	650,042	160,000
Jind	1,259	284,560	62,800
Nabha	928	282,750	70,000
Kapurthala	620	252,617	200,000
Mandi	1,000	166,923	43,000
Nahan (Sirmur)	1,096	124,134	51,200
Maler Kotla	167	75,755	30,200
Faridkot	643	115,040	35,600
Chamba	3,216	124,032	35,000

Offers were freely made by the Punjab States of the service of their troops and of aid in other respects for the frontier expeditions. During the year under review these were in many instances accepted, and the behaviour of the Imperial Services contingents that were employed was warmly recognised by the Government of India. NATIVE STATES.

In regard to administration, particularly in matters of finance and land revenue, several of the Punjab States, including Patiala, Kapurthala, Mandi, Suket, Pataudi, Bashahr, and Keonthal, are causing more or less serious anxiety. In the last-named State, grievances festered into revolt which the Raja's forces were unable to repress, and the intervention of Government to ensure a more satisfactory management of the State became necessary. A similar condition of affairs in Bashahr also led to intervention and the appointment of a British official as chief minister. In Patiala, Chamba, and other States there are indications of considerable friction between the landed classes and the State authorities; and in at least one State complaint is made of undue prejudice against the Mahomedan population on the part of the Chief. The administration of Nabha, as usual, is warmly commended. The Nawab of Loharu also receives praise for the administration not only of his own State, but also of Maler Kotla. Since the close of the year three of the Punjab chiefs have died, namely, those of Bahawalpur, Faridkot, and Sirmur (Nahan). The chief of the last-named State had ruled his State with remarkable ability and success, and in his last years of infirmity the administration had been carried on with equal ability by his eldest son, who has now succeeded to the Chiefship with full powers. The young Raja of Jind is not yet entrusted with the administration of this State, and the question of his proper education for his future duties has been a matter of careful consideration.

The year 1897 was a year of calamity in the Central Provinces, and the Administration Reports of the Feudatory States show that most of them had their full share of trouble. In eight of them, including the small State of Makrai in the Hoshangabad District, there was acute famine. The southern and eastern States of Chhattisgarh were outside the zone of draught, and escaped any serious failure of crops. But, save in Bamra, where the prohibition of export of food-grains appears to have secured the immediate object with which it was issued by the Chief, the pressure of high prices was everywhere felt by the poorer classes, and few States were free from the incursions of wanderers from the famine-stricken areas of Chhattisgarh. Many of the chiefs exerted themselves to the full for the relief of distress, but in one at least, viz., Kanker, the failure of the chief to carry out his promises in this respect led to grievous mortality and to a quarter of the land going out of cultivation. The horrors of famine were intensified by an epidemic of cholera more severe and widespread than had been known for many years past. Only Bamra and Rehrakhol appear to have been entirely free from it. The murder of the Raja of Kalahandi, and the death of the Raja Bahadur of Nandgaon, were events deeply deplored both by the people of their respective States and by the Administration. In both cases there is the prospect of a long minority. There are now five of the 14 Chhattisgarh States under Government management, and two more where restrictions have had to be placed on the exercise of power by the chiefs. The title of Raja, which had been two years previously conferred as a personal distinction on the chief Khairagarh was during the year under review made hereditary; the management of the State continues to be very satisfactory. The aggregate income of the 15 States of the Central Provinces is nearly 19 lakhs, of which about 2½ are due as tribute to the Government. Notwithstanding the unfavourable circumstances of the year, the number of pupils at school showed little decline, and the expenditure on education and on public works was larger than before. A great deal has been done in these States towards the improvement of roads and communications; but in some cases, to obtain the full benefit of the roads already made, it is necessary that their continuations through British territory should be carried out so as to connect them with the railways and centres of trade. The want of means has hitherto prevented the completion of these necessary links. The forests of the States have been largely indented on for the supply of railway sleepers, and careful management is required to prevent the undue exhaustion of their resources; the matter is receiving attention. Central Provinces.

NATIVE STATES.

Madras.

The two important States of this presidency are Travancore and Cochin, the reports of which are drawn up for the Malayalam year, August 1896—August 1897. The following are the figures for the trade and revenue of the two States for the two last years :—

	Trade.		Revenue.		Balance at end of Year.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Travancore - - -	2,431,759	2,479,810	895,899	885,556	976,332	970,215
Cochin - - -	375,669	249,855	192,629	206,531	443,057	446,128

In both Travancore and Cochin Regulations were passed for preventing the outbreak or spread of epidemic diseases. In Travancore there was also a General Clauses Regulation and a Regulation dealing with irrigation. In Cochin Regulations dealing chiefly with Civil Courts and their procedure were under preparation. In both States the finances are prosperous, the people contented and in the enjoyment of agricultural prosperity. There are no complaints in regard to general administration, which, in the States, and more particularly in Travancore, follows the lines of British administration. Education in Travancore is more widespread than generally in British India, and showed a satisfactory advance in 1897-98; in Cochin, however, a decline of about 4 per cent. is recorded in the number of pupils at school, the explanation of which is not given. The road communications of Cochin are said to be maintained in better condition than those of Travancore; the outlay on public works was 16½ lakhs in the latter State and 5¼ in the former, a proportion of the whole revenue which shows in both States a satisfactory regard for public interests.

In the other three States of the Madras Government, viz., Pudokkottai, Banganapalle, and Sanduru, the season was unfavourable; in the two latter States relief works were required. In Pudukkottai an Arms Regulation and an Epidemic Diseases Regulation were passed. In Banganapalle an increase of 20 per cent. in the rate of mortality is ascribed to an outbreak of cholera.

In the Vizagapatam and Godavari Agencies the season was generally more prosperous, but public health suffered from the prevalence of smallpox and cholera. There was some crime, particularly the looting of villages arising out of distress in the Godavari Agency; and boundary disputes caused anxiety in the Vizagapatam Agency.

Bombay.

The Bombay Government exercises control over some 350 Native States, many of which possess but few attributes of sovereignty. Their total area exceeds 64,600 square miles; their population in 1891 was 8,085,433, and their revenues in 1897-98 aggregated Rx. 4,601,983. Some financial figures regarding the more important States are given below :—

STATE.	Revenue in 1897-98.	Expenditure on Public Works.
	Rx.	Rx.
Cutch - - - - - - - -	252,167	15,659
Palanpur - - - - - -	65,953	4,868
Radhanpur - - - - - -	67,124	9,165
Idar - - - - - -	62,867	2,706
Junagad - - - - - -	266,250	39,935
Navanagar - - - - - -	308,391	24,485
Bhavnagar - - - - - -	382,774	92,281

State.	Revenue in 1897-98.	Expenditure on Public Works.
	Rx.	Rx.
Porbandar	65,000	26,256
Dhrangadhra	57,511	2,579
Morvi	112,539	33,653
Gondal	150,000	32,676
Cambay	61,814	6,820
Rajpipla	28,995	7,185
Janjira	50,975	6,470
Savantvadi	43,187	4,681
Kolhapur and feudatories	456,996	59,255
Sangli	117,580	8,631
Khairpur	113,800	12,469

Owing to the continued strain of high prices, relief works at a considerable cost were maintained in Bhávnagar, Kolhápur, the Sátára Jághirs, and Southern Marátha States. Plague also prevailed in Cutch, Pálanpur, and in some of the Deccan and Southern Marátha Country States. Trade generally receded. Crime increased everywhere except in the States of Cutch, Pálanpur, Sátára Jághirs, and Khairpur. Serious offences, however, declined, especially in Káthiáwár, where dacoities fell from 20 to 5 and robberies from 67 to 12, and where the police succeeded in putting an end to bands of outlaws in Junagad, Jetpur, Gondal, and Porbandar. The volume of civil litigation increased except in the State of Khairpur, the most noticeable increase being in Sunth, in the Rewa Kántha Agency, where it was due to the revision of the law of limitation. All the States showed orderly progress in the different branches of administration. A large outlay was incurred, especially in Káthiáwár on water-works, educational buildings, and dispensaries. The Rájkot-Jámnagar and the Rájpipla State Railways were opened for traffic during the year, and even the Dhrangadra-Wadhwán Railway, of which the first sod was cut by His Excellency only in December 1897, was finished and opened for traffic in June 1898.

In recognition of their efficient and liberal administration, the Mir of Khairpur, the Diván of Pálanpur, the Thákor Sáhebs of Morvi and Gondal were nominated Knights Grand Commanders of the Most Eminent Order of the Indian Empire. A Companionship of the Most Exalted Order of the Star of India was conferred on the Chief of Jasdan. The Raja of Rájpipla was installed on the *gadi*, and the lengthened British administration of the State terminated. The question of the Akalkot succession was not finally decided during the year under review.

Progress was made, but no settlement was arrived at, in the matter of the Cutch-Morvi disputes; a long-standing difference between Morvi and Malia was settled; and steps were taken towards the settlement of disputes between Porbandar and Navanagar and between Navanagar and Baroda. The future arrangements for the Rajasthanik Court were under consideration throughout the year. The ruling chiefs of Kathiawar showed themselves generally progressive in regard to education, medical science and administration, horse-breeding, agricultural experiments, water-supply, and other matters. The exports from Kathiawar ports declined during the year from 313 lakhs to 201 lakhs; imports were 239 lakhs. The greatest contrast between the enlightened and efficient administration of the present time and the backward and unsatisfactory condition of affairs a few years ago is to be found in Cambay and Khairpur.

TRANSMARINE DEPENDENCIES AND INTERESTS.

TRANSMARINE DEPENDENCIES AND INTERESTS.

Aden and Somali Coast.

The progress of trade at Aden and on the Somali Coast is indicated by the following figures, which take no account of Government stores and treasure. In 1897–98 there was a heavy falling off in trade, chiefly under the heads of coal, coffee, and treasure.

ADEN TRADE.

——	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.
Imports:	Rx.	Rx.	Rx.	Rx.	Rx.
By Sea - - -	3,490,881	3,778,326	3,934,012	4,103,091	3,634,798
By Land - -	318,103	363,275	393,989	302,770	331,048
Treasure - -	642,024	610,560	744,836	821,628	440,841
Total - - -	4,451,008	4,752,161	5,072,837	5,227,489	4,406,687
Exports:					
By Sea - - -	2,937,790	3,058,994	3,414,920	3,260,327	3,132,976
By Land - -	168,045	188,358	187,548	208,412	127,243
Treasure - -	581,537	680,710	792,225	685,756	487,819
Total - - -	3,687,372	3,928,062	4,394,693	4,154,495	3,748,038
GRAND TOTAL - -	8,138,380	8,680,223	9,467,530	9,381,984	8,154,725

SOMALI COAST TRADE.

——	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.
Berbera and Bulhar:	Rx.	Rx.	Rx.	Rx.	Rx.
Imports - -	227,741	215,134	257,104	235,517	279,575
Exports - -	236,536	209,374	208,481	214,266	244,777
Zaila:					
Imports - -	132,367	280,631	365,644	351,287	242,670
Exports - -	154,623	284,387	415,337	466,531	280,764
Total - - -	751,267	989,526	1,246,566	1,267,601	1,047,786

In October 1898 the Somali Coast Protectorate was transferred from the charge of the India Office to that of the Foreign Office. In consequence its affairs will not be reviewed in future numbers of this statement. During the year 1897 the receipts on the Coast amounted to Rx. 31,231, against an expenditure of Rx. 20,842. The last year's administration was one of success and of undisturbed peace, except for the usual inter-tribal raids and feuds. At Aden intercourse with the tribes was friendly throughout the year. The Abdali Sultan during 1897–98 interfered with some of the adjoining tribes, and the

peace of the caravan routes was consequently disturbed, but peace and the old relations were re-established shortly after the close of the year, when the Abdali Sultan died. The general administration of the Settlement of Aden was satisfactory and uneventful. A new hospital was opened, and new police lines were under construction. TRANSMARINE DEPENDENCIES AND INTERESTS.

Consular reports laid before Parliament contain information regarding trade and the affairs of Muscat and of the littoral of the Persian Gulf. Oman and Persian Gulf.

ARMY.

The sanctioned establishment for 1897–98 was as follows:— ARMY

British Troops	73,050
Miscellaneous Officers	892
Native Troops (including European Officers)	145,624
Total	219,566
Corresponding Total for 1896–97	219,601

The actual strength of the Army on the 1st April 1898 was as follows*:—

PUNJAB COMMAND.			
British.			
Cavalry (3 regiments)	1,887		
Artillery (22 batteries and companies)	3,227		
Infantry (15 battalions)	15,223		
		20,337	
Native.			
Cavalry (15 regiments)	9,217		
Artillery (5 batteries)	1,118		
Infantry (40 battalions)	35,897		
		46,232	
			66,569
BENGAL COMMAND.			
British.			
Cavalry (2 regiments)	1,379		
Artillery (27 batteries and companies)	4,225		
Engineers	43		
Infantry (17 battalions)	17,605		
		23,252	
Native.			
Cavalry (11 regiments)	6,908		
Artillery (2 batteries)	494		
Sappers and Miners (8 companies)	1,312		
Infantry (25 battalions)	23,108		
		31,822	
			55,074
Carried forward			121,643

* The establishment was short by one regiment of British cavalry and two battalions of British infantry not arrived.

ARMY.

		Brought forward - - -	121,643
MADRAS COMMAND.			
British.			
Cavalry (2 regiments) - - - -	1,261		
Artillery (15 batteries and companies) -	2,356		
Engineers - - - - - - -	52		
Infantry (8 battalions) - - - -	8,778		
		12,447	
Native.			
Cavalry (3 regiments) - - - -	1,773		
Sappers and Miners (9 companies) - -	1,480		
Infantry (32 battalions) - - - -	26,157		
		29,410	
			41,857
BOMBAY COMMAND.			
British.			
Cavalry (1 regiment) - - - - -	622		
Artillery (24 batteries and companies) -	3,855		
Engineers - - - - - - -	54		
Infantry (10 battalions) - - - -	10,105		
		14,636	
Native.			
Cavalry (7⅝ regiments) - - - -	4,708		
Artillery (2 batteries) - - - -	575		
Sappers and Miners (5 companies) - -	824		
Infantry (31 battalions) - - - -	23,996		
		30,103	
			44,739
TROOPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA.			
*Hyderabad Contingent.**			
Cavalry (6 regiments) - - - -	2,293		
Artillery (4 batteries) - - - -	512		
Infantry (6 battalions) - - - -	4,856		
		7,661	
Body guards (Governor General's and Governors') - - - - - - -	268		
Resident's escort, Nepal - - - -	95		
		363	
			8,024
		TOTAL - - -	216,263

* The Hyderabad Contingent is not included in the "Sanctioned Establishment" shown above.

The total of the Native Army Reserves in India on 1st April 1898 was 16,978.

The net expenditure on the Army in 1897-98 was—

In India - - - - - - -	Rx.	19,553,207
In England - - - - - - -	£.	4,197,825
Exchange - - - - - - -	Rx.	2,363,878
Total - - -	Rx.	26,114,910
Total in 1896-97 - - -	Rx.	23,301,988

The number of Volunteers in the whole of India on 1st April 1898 was as under:— ARMY.

Command.	Enrolled Strength.	Efficient.
Punjab - - - -	2,020	1,818
Bengal - - - -	13,085	12,486
Madras - - - -	9,788	8,260
Bombay - - - -	5,710	5,552
	30,603	28,116

On the 1st of April 1897 the number of enrolled Volunteers was 29,466, of whom 27,384 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1897–98 was 1,079.

There were no changes of great importance in the organisation of the army during the year 1897–98.

The British cavalry regiments were organised in three service squadrons and one reserve squadron, in lieu of the former organisation of four service squadrons and a depôt, but the total strength remained unchanged. Regiments serving in India ceased to have depôts after the trooping season of 1897–98, the drafts being supplied from home by regiments of the same corps (dragoons, hussars, or lancers) on the lower establishment.

The pay of the Army Medical Staff (now Royal Army Medical Corps) was increased, and corresponding changes were made in the pay of certain ranks of the Indian Medical Service.

The cavalry and infantry regiments of the Hyderabad Contingent were reorganised on the class squadron and class company system.

A scale of pensions for the Indian Nursing Service was sanctioned.

The increasing prevalence of enteric fever among the British troops in India led the Government of India to submit proposals for the employment in cantonments of specially qualified sanitary officers, whose sole duty should be fully to investigate the causes of disease, and to give practical advice in sanitary matters. The appointment of three officers, at Lucknow, Umballa, and Rawal Pindi, was accordingly sanctioned as an experimental measure.

In the Ordnance Department the direct control of the Ordnance Factories, which had hitherto been controlled by the Inspectors General of the Command in which the factories were situated, was transferred to the Director-General of Ordnance in India.

In last year's report a brief account was given of the increase of venereal disease in the army, and of the measures to be taken to diminish its prevalence. In pursuance of the instructions issued by the Secretary of State, the Government of India published a new set of rules, issued under the Cantonments Act, 1889, which made further provision for dealing with contagious and infectious diseases, and for the enforcement of public order and decency in cantonments. Copies of the rules and of the letter in which the Government of India stated explicitly their policy with respect to the future treatment of venereal disease in cantonments are subjoined. A General Order was also issued by the Commander-in-Chief in India, warning soldiers of the great virulence of this disease in tropical climates, and inviting the co-operation of all officers and men, from the highest to the lowest, to use their best personal efforts in their several spheres of duty to lessen the evil.

CANTONMENT REGULATIONS.

General Order of the Government of India, No. 1,148, *Judicial, dated 15th October,* 1897.

CANTONMENT REGULATIONS.

In continuation of the notification of the Government of India in the Military Department, No. 750, dated the 9th July 1897, and in supersession of the rules published in G. G. O. No. 460, dated the 3rd May 1895, and of any rules hitherto issued which are inconsistent with the rules hereby published, the Governor-General in Council is pleased to make the following rules, under sections 26 and 27 of the Cantonments Act, 1889 (XIII. of 1889), and to direct that they be put in force in all cantonments in British India:

Definitions.

1. In these rules:—

(*a*) the expression "bazar" means any land set apart for occupation by natives of India, except the lines of native troops;

(*b*) the expression "regimental bazar" means any bazar under the management of regimental authorities;

(*c*) the expression "infectious or contagious disorder" includes cholera, leprosy, enteric fever, venereal disease and every infectious or contagious disorder; and

(*d*) the expression "street" includes any way, road, lane, square, court, alley, passage or open space, whether a thoroughfare or not and whether built upon or not, over which the public have a right of way, and also the roadway and footway over any public bridge or causeway.

Hospitals or Dispensaries.

2. (1) So far as the funds at its disposal permit, the Cantonment Authority may—

(*a*) provide and maintain, either within or without the cantonment, as many hospitals or dispensaries as may be necessary; or

(*b*) make, upon such terms as it thinks fit to impose, a grant-in-aid to any hospital or dispensary, whether within or without the cantonment, not maintained by it.

(2) Every hospital or dispensary maintained or aided under this rule shall have attached to it a ward or wards for the treatment of persons suffering from infectious or contagious disorders.

Medical Officer to be in charge of hospital or dispensary.

3. A medical officer, to be appointed in such manner as the Local Government may direct, shall be in charge of every hospital or dispensary maintained or aided under rule 2.

Subordinate establishments for hospitals or dispensaries.

4. Subject to the control over the Cantonment Fund, which is vested in the Local Government by section 23 of the Cantonments Act, 1889, there shall be appointed, for every hospital or dispensary maintained or aided under rule 2, such subordinate establishment as may be necessary.

Medical supplies, appliances &c.

5. So far as the funds at its disposal permit, the Cantonment Authority shall cause every hospital or dispensary maintained or aided under rule 2 to be provided with—

(*a*) all necessary drugs, instruments, apparatus, furniture and appliances;

(*b*) sufficient cots, bedding and clothing for in-patients; and

(*c*) such further requisites as may be necessary.

Application of civil hospital rules.

6. Every hospital or dispensary maintained or aided under rule 2 shall be maintained in accordance with the rules made generally or specially by the Governor-General in Council, or the Local Government for the conduct of hospitals and dispensaries, or in accordance with the said rules modified in such manner as the Governor-General in Council or the Local Government may think proper.

Free patients.

7. At every hospital or dispensary maintained or aided under rule 2 the sick poor of the cantonment, persons in the cantonment suffering from infectious

CANTONMENT REGULATIONS.

or contagious disorders and, with the sanction of the Cantonment Authority, any other sick persons may receive medical treatment free of cost and, if treated as in-patients, shall be either dieted gratuitously, or, should the medical officer in charge so direct, granted subsistence allowance on a scale to be determined by the Cantonment Authority:

Provided that the subsistence allowance granted as aforesaid shall not be less than the lowest allowance for the time being fixed for the subsistence of judgment-debtors by the Local Government under section 338 of the Code of Civil Procedure. XIV of 1882.

Paying patients.

8. Any sick person who is ineligible under the last foregoing rule to receive medical treatment free of cost in any hospital or dispensary maintained or aided under rule 2, may, upon such terms as the Cantonment Authority thinks fit to impose, be admitted to treatment in such hospital or dispensary.

Power to call upon person suffering from infectious or contagious disorder to attend and remain in the hospital or dispensary.

9. If the medical officer in charge of a hospital or dispensary maintained or aided under rule 2 has *primâ facie* grounds for believing that any person living in the cantonment is suffering from an infectious or contagious disorder, he may, by notice in writing in the form set forth in the schedule or in any similar form, call upon such person to attend at the hospital or dispensary at a time to be specified in the notice and not to quit it without the permission of the medical officer in charge, unless and until such medical officer is satisfied, by examination if necessary, that such person is not in fact suffering, or is no longer suffering from such disorder:

Provided that if, having rgard to the nature of the disorder or the condition of the person suffering therefrom, or the general environment and circumstances of such person, the medical officer considers the attendance of such person at the hospital or dispensary inexpedient, he may dispense with such attendance, and take such measures or give such directions as to him seem fit and proper.

Power to exclude from cantonment.

10. If the medical officer in charge of a hospital or dispensary maintained or aided under Rule 2 reports in writing to the Commanding Officer of the cantonment that any person having received a notice, as provided in Rule 9, has refused or omitted to attend at the hospital or dispensary, or that such person having attended at the hospital or dispensary, has quitted it without the permission of such medical officer, the Commanding Officer may, if he thinks it expedient, by order in writing, direct such person to remove from the cantonment within 24 hours and prohibit such person from remaining longer in, or re-entering, it without his written permission.

Removal of brothels or prostitutes.

11. The Cantonment Authority may, by notice in writing, prohibit—

(*a*) the keeping of a brothel, or

(*b*) the residence of a public prostitute in the cantonment, or any specified part thereof.

Exclusion of public prostitutes from regimental bazars.

12. No public prostitute shall be permitted to reside within the limits of any regimental bazar situate in the cantonment.

Loitering or importuning for sexual immorality prohibited.

13. No person shall, in any street or public place within the limits of the cantonment, loiter for the purpose of prostitution, or importune any person to the commission of sexual immorality:

Provided that no person shall be charged with a breach of this rule except on the complaint of the person importuned, or of a member of the British military police force employed in the cantonment, and specially authorised in this behalf by the Commanding Officer of the cantonment, or of an officer as defined in the Cantonments Act, 1889.

Penalties.

Penalties.

14. Whoever—

(*a*) having, under Rule 10, been prohibited from remaining in, or re-entering, the cantonment, remains in, or re-enters, it without the written permission of the Commanding Officer; or

(*b*) fails to comply with a notice under Rule 11; or

(*c*) commits a breach of Rule 13;

CANTONMENT REGULATIONS.

shall be punishable with fine, which may extend to 50 rupees, or with imprisonment for a term which may extend to eight days.

Arrest without warrant.

15. Any member of the police force employed in the cantonment may arrest without a warrant any person committing, or charged with having committed, an offence punishable under clause (*a*) or clause (*c*) of the last foregoing rule:

Provided as follows:—

(i.) No person shall be so arrested whose name and address are known to either the complainant or the arresting officer;

(ii.) No person shall be so arrested who consents to give his or her name and address, unless there is reasonable ground for doubting the accuracy of the name or address so given, the burden or proof of which shall be on the arresting officer.

(iii.) No person so arrested shall be detained after his or her name and address have been ascertained.

(iv.) No person so arrested shall, except under the order of a magistrate, be detained longer than may be necessary for bringing him or her before a magistrate; and

(v.) No person shall be so arrested for a breach of Rule 13 except—

(*a*) at the request of the person importuned or of an officer, as defined in the Cantonments Act, 1889, in whose presence the breach was committed; or

(*b*) by, or at the request of, a member of the British military police force employed in the cantonment and specially authorised in this behalf by the Commanding Officer of the cantonment, in whose presence the breach was committed.

SCHEDULE.

(*See Rule* 9.)

To

Take notice that under Rule 9 of the Rules under the Cantonments Act, 1889 (XIII. of 1889), published in the *Gazette of India*, 1897, Part I., page , you are hereby called upon to attend at the on day, the 189 , at o'clock M., and not to quit the said $\frac{\text{hospital}}{\text{dispensary}}$ without the permission of the medical officer in charge, unless and until such officer is satisfied that you are not in fact suffering, or are no longer suffering, from an infectious or contagious disorder, that is to say, from

Medical officer in charge of the

Dated , the , 189 .

Letter from Major General P. J. Maitland, C.B., Secretary to the Government of India. Military Department, to the Quartermaster General in India.—(No. 5465—D., "Sanitary—Cantonment Hospitals,"—dated Simla, the 20th November 1897).

In the Despatch No. 25, dated 26th March 1897, from the Secretary of State, regarding the prevalence of venereal disease in the British Army in India, it is stated that Her Majesty's Government cannot acquiesce in the continuance of the present state of things which has led to a disastrous increase in venereal disease amoug the British troops in India, and requires the immediate adoption of remedial measures.

2. In pursuance of the recommendations of the Secretary of State, a new set of rules has been issued under the Cantonments Act, 1889, superseding the rules issued in G. G. O. No. 460, dated 3rd May 1895, and making further

provision for dealing with contagious and infectious diseases, and for the enforcement of public order and decency in cantonments. CANTONMENT REGULATIONS.

3. To give full effect to these Rules, Act V. of 1895 has been repealed by Act XV. of 1897, and it therefore becomes desirable to state explicitly the policy of the Government of India with respect to the future treatment of venereal disease in cantonments.

4. The Governor-General in Council is of opinion that venereal diseases should, as far as possible, be dealt with on the same lines as other infectious and contagious diseases. It must be expressly understood that the new rules do not in any way revive the system which was in force up to 1888. They do not authorise the provision of prostitutes for the troops, or the compulsory examination of prostitutes, or any scheme of registration and licensing for the purpose of prostitution. If a prostitute is suspected of being diseased and of being a source of danger to other persons, she may be required to be examined, and if she refuses to be examined, she may be required to quit the cantonment. Her refusal to be examined will entail no other penalty, and no prostitute, therefore, will be examined against her will. If she is found to be diseased, and submits to treatment, any further examination that may be necessary will be determined by the medical requirement of the case, and will depend on considerations similar to those which would apply in the case of any other infectious or contagious disease.

Although there is to be no compulsory examination of women, medical officers may make arrangements to carry out from time to time the examination of women who voluntarily present themselves.

5. The Governor-General in Council desires to impress on those concerned that the success of the measures now adopted will depend very much on the manner in which the new rules are put in force.

Rule 9 empowers the medical officer in charge of a Cantonment Hospital, if he has *primâ facie* grounds for believing that any person living in the cantonment is suffering from an infectious, or contagious disorder, to require, by notice in writing, that such person shall attend at the hospital or dispensary at a time to be specified in the notice and not to quit it without his permission; unless and until he is satisfied, by examination if necessary, that such person is not in fact suffering, or is no longer suffering, from such disorder.

Rule 10 empowers the Commanding Officer of a cantonment, if the medical officer in charge of a hospital or dispensary reports in writing that any person having received a notice as provided for in rule 9 has refused or omitted to attend at the hospital or dispensary, or that such person having attended at the hospital or dispensary, has quitted it without his permission, to direct by order in writing, if he thinks it expedient, such person to remove from the cantonment within 24 hours and prohibit such person from remaining longer in, or re-entering, it without his written permission.

6. It should be carefully borne in mind by those concerned that the powers conferred by these rules are *permissive*, and that if a medical officer should have *primâ facie* grounds for believing that any person living in the cantonment is suffering from an infectious or contagious disorder, he should, in order to prevent, as far as possible, the infliction of hardships on the more respectable inhabitants of the cantonment, personally satisfy himself regarding the condition and general environment and circumstances of the sick person, in order to ascertain whether the case does not admit of the exercise of the discretion conferred on him by rule 9 to give such other directions in the matter, apart from attendance at, or detention in, the hospital or dispensary, as may seem to him most expedient for the purpose of preventing the spread of the disorder. The powers conferred must be exercised with discretion. It is not the intention of the Government that they should be exercised in the cases of respectable persons, who can arrange for private medical attendance, and who are willing to take any necessary precautions to prevent the spread of the disease. It is the danger of the spread of the disease to others that justifies the interference of the medical officer.

7. His Excellency in Council trusts that the measures which will now come into force may alike tend to remove temptation from young soldiers, and to diminish the prevalence of this terrible disease. These measures will also alleviate the sufferings of the women who have contracted venereal disorders,

CANTONMENT REGULATIONS.

by providing them with medical care and treatment which would not be denied to them in the case of any other infectious or contagious disease.

8. In conclusion I am to ask that, under the orders of His Excellency the Commander-in-Chief, the necessary steps may be taken for making known the views of the Government of India on this question to all military officers concerned.

MILITARY OPERATIONS.

MILITARY OPERATIONS.

The year 1897–98 was remarkable for the number of outbreaks among the tribes on the North West Frontier and for the extensive military operations which became necessary for their suppression.

Tochi.

On the 10th June 1897 the escort of the Political Officer in the Tochi Valley, consisting of about 300 men, was suddenly and treacherously attacked by a body of the Madda Khel section of the Darwesh Khel Waziris. The troops behaved with the greatest gallantry. The British officers were all wounded (most of them mortally) early in the engagement, but continued to carry out their duties until absolutely incapacitated. The force retired to Sheranna, carrying on a running fight for about four hours, when reinforcements arrived and the enemy were beaten off. Lieut. Colonel A. Bunny, commanding the escort, and two other British officers died during the retreat. The three other British officers were also wounded, and two of them subsequently died.

Orders were immediately issued for the formation of a force to exact reparation. It was designated the "Tochi Field Force," and was placed under the command of Major General G. C. Bird, C.B. It was divided into two brigades, commanded by Brigadier Generals C. C. Egerton, C.B., D.S.O., and W. P. Symons, C.B., respectively, and numbered rather over 7,000 men in all. General Bird assumed command on the 21st June, and early in July arrived in the valley. There was no organised resistance, but the tribesmen adopted their usual tactics of firing into camp, attacking outposts, and interfering with the line of communications. Troops were incessantly moved up all their valleys and into their remotest villages; their fortified buildings were destroyed, and their flocks and herds were captured. At last, homeless and destitute, they relinquished the contest, and, at the end of October, submitted to the terms imposed upon them. The military operations now practically terminated, but the field force, reduced in strength from time to time, was not broken up until January 1898.

Malakand.

On the night of the 26th July 1897, the camp a tthe Malakand and the outpost of Chakdara were attacked by a miscellaneous gathering of tribesmen from the surrounding country, led by a mad fakir, who had announced that our troops would be driven out. The garrisons were not altogether unprepared. After heavy fighting the attacks were repulsed; but they were renewed each successive night up to that of the 30th of July, desultory firing going on during the day. Chakdara was also twice attacked in the day time. With hardly any rest or sleep, the troops behaved admirably, and each attack was met and repulsed with steadiness and success. The strength of the Malakand garrison was about 2,700, and of that of Chakdara a little over 300. Some reinforcements arrived at the Malakand on the 29th July, and more on the 1st August, when Sir B. Blood arrived and assumed command. A small body of cavalry were got through to Chakdara, and the post was relieved on the 2nd August, as related below.

As soon as intelligence of the rising was received in India, reinforcements were hurried up, and orders were issued for the formation of a force to be called the "Malakand Field Force." Major General Sir B. Blood, K.C.B., was appointed to command, and the force (which included the troops already on the Malakand and was about 8,000 strong) was divided into two brigades under Brigadier Generals, W. H. Meiklejohn, C.B., C.M.G., who had been in command at the Malakand, and P. D. Jeffreys, C.B. A reserve brigade was also concentrated near the frontier. This, though with some considerable change in its composition, afterwards became the 3rd Brigade of the Malakand Field Force under Brigadier General J. H. Wodehouse, C.B., C.M.G.

Sir B. Blood assumed command on the 31st July, and, as stated above, arrived at the Malakand on the 1st August, in advance of the greater part of the force. On the 2nd, a column under Brigadier General Meiklejohn was sent to the relief of Chakdara, which was successfully accomplished, though not without some hard fighting. At the same time there was fighting near the Malakand itself. The enemy now cleared out of the neighbourhood. MILITARY OPERATIONS.

Having organised the field force and its communications Sir B. Blood advanced with his 1st brigade and some other troops into Upper Swat. On the 17th August he encountered the enemy near Landikai, and dispersed them without much difficulty, though with some loss. Several tribes now submitted and the column returned to the Malakand on the 27th August.

In the beginning of September Sir B. Blood disposed his forces with a view to the movement of two of his brigades into the Mohmand country in order to cooperate with the Mohmand Field Force (*see* below). Circumstances, however, somewhat altered his plans for, on the night of the 14th September, the camp of the 2nd brigade, near Markhanai, was assailed by a gathering of Mamunds and Salarzais, who inflicted some loss upon our troops. General Jeffreys now discontinued his advance towards the Mohmand country and spent the next few days in punishing the Mamunds and Salarzais. On the 16th there was very heavy fighting in the Wadelai valley in which our losses were considerable. Between that date and the 22nd General Jeffreys took and destroyed several fortified villages. Meanwhile the 3rd brigade, with which was Sir B. Blood himself, was halted at Nawagai. Here it was attacked on the nights of the 19th and 20th September by the Adda Mulla's gathering from the Mohmand country. After the failure of the second attack the Mulla drew off. Among our wounded was General Wodehouse, who was compelled in consequence to hand over the command of the 3rd brigade to Lieut.-Colonel B. C. Graves. This brigade now joined the Mohmand Field Force.

The Mamunds now commenced negociations which, however, came to nothing, and operations against their villages were resumed on the 29th September. There was some very hard fighting at Inayat Killa on the 30th September and more at Badalai on the 3rd October. On the 11th of that month the Mamunds finally submitted. The second brigade then returned to the Malakand.

In November a column under Colonel A. J. F. Reid was sent into the Cis-Swat Utman Khel district. There was no opposition and the column returned in the beginning of December.

In January 1898 a force, which was designated the "Buner Field Force" was detailed to coerce the Buners and Chamlawals who had failed to comply with the terms imposed upon them. It consisted of the greater part of the Malakand Field Force and was commanded by Sir B. Blood, who had with him Generals Meiklejohn and Jeffreys as Brigadiers. There was slight opposition at the Tanga Pass, but the tribes almost immediately submitted. On the 19th January the field force moved to British Territory. A considerable force was maintained at the Malakand and in the Swat Valley.

On the 7th August a large gathering of tribesmen, principally Mohmands, led by the Adda Mulla raided into British territory and, after burning the village of Shankargarh, attacked the fort of Shabkadr, retiring in the morning. On the 8th, Major-General Elles, the officer commanding the Peshawar District, sent out a column of about 730 men with orders to attack the tribesmen. This they did on the morning of the 9th. A sharp engagement ensued. General Elles arrived while it was in progress, and the enemy were driven back into the hills with heavy loss. No pursuit was attempted. Mohmand.

No immediate steps were taken for an invasion of the Mohmand country, but two additional reserve brigades were concentrated at Rawal Pindi with a view to use as might be required. This was partly in consequence of the unsettled state of the Afridis.

Early in September, however, it was decided to send an expedition against the Mohmands, and a force nearly 7,000 strong, styled the "Mohmand Field Force," was formed for this purpose. Major-General E. R. Elles, C.B., was appointed to command, with Brigadier-Generals R. Westmacott, C.B., and C. R. Macgregor, D.S.O. in command of brigades. The advance across the border commenced on the 15th September, the second brigade was halted on

MILITARY OPERATIONS.

the road to secure communications, and on the 21st September, General Elles effected a junction with the 3rd brigade of the Malakand Field Force which was placed under his orders by Sir B. Blood (*see* above).

The physical difficulties of the country were very great but the opposition was not very determined. On the 23rd September, General Elles attacked the Adda Mulla on the Bedmanai Pass and dispersed his gathering, and on the 25th visited the Mulla's headquarters at Jarobi. Many village towers were destroyed.

By the 30th September the tribes had submitted, and the country was evacuated by the 7th October.

Tirah.

Towards the middle of August 1897 signs of unrest began to manifest themselves among the powerful Orakzai and Afridi tribes, and the Government of India commenced to take precautions. The 2nd and 3rd reserve brigades were concentrated at Rawal Pindi, as stated above.

On the 23rd August the Afridis attacked the posts in the Khyber held by the Khyber Rifles, men of their own tribe. Fort Maude was captured on that day and Ali Musjid on the next, and on the 25th Lundi Kotal was taken after some hard fighting. The Orakzais moved about the same time, menacing the posts on the Samana and attacking several of our smaller outlying posts and frontier villages.

It was now decided that it would be necessary to undertake operations on a large scale against these tribes, and instructions were issued for the formation of a considerable force. Meanwhile the Government of India prepared to check any aggressive movement on the part of the tribesmen, and moveable columns were accordingly detailed to watch the threatened points. Brigadier-General A. G. Yeatman Biggs, C.B., assumed command of the troops on the Kohat-Kurram Frontier. Some desultory fighting occurred along this line.

On the 28th August, the Orakzais, who had been joined by a contingent of Afridis, attacked the Samana Ridge blocking up the road to it. On the 12th September they succeeded in taking Saragarhi by assault. The garrison (21 men of the 36th Sikhs) died at their post, after inflicting considerable loss on the enemy. On the 14th, General Yeatman-Biggs relieved Gulistan and Fort Lockhart.

The final orders for the despatch of the "Tirah Expeditionary Force" were issued on the 8th October. General Sir W. S. Lockhart. K.C.B., K.C.S.I., was appointed to its command, with Brigadier-General W. G. Nicholson, C.B., as Chief of Staff, and it was divided into four bodies:—

I. A main column, about 18,700 strong, sub-divided into two divisions, each consisting of two brigades, to advance on Tirah from the Samana.
   1st Division, Major-General W. P. Symons, C.B.
      1st Brigade, Brigadier-General R. C. Hart, C.B., V.C.*
      2nd Brigade, Brigadier-General A. Gaselee, C.B.
   2nd Division, Major-General A. G. Yeatman-Biggs, C.B.
      3rd Brigade, Brigadier-General F. J. Kempster, D.S.O.
      4th Brigade, Brigadier-General R. Westmacott, C.B., D.S.O.

II. The line of communications of the main column, 5,000 strong, under Lieut.-General Sir A. P. Palmer, K.C.B.

III. A mixed brigade styled the Peshawar column, numbering about 4,500, and under the command of Brigadier-General A. G. Hammond, V.C., C.B., D.S.O., A.D.C.

IV. A force, designated the Kurram Moveable column, 2,600 strong, commanded by Colonel W. Hill.

A mixed brigade was also constituted at Rawal Pindi, as a reserve.

Sir W. Lockhart left Kohat for the Samana on the 9th October, and the force was concentrated for advance as rapidly as difficulties of transport would admit. On the 18th, the 2nd Division under Sir A. P. Palmer (General Yeatman-Biggs being ill) captured and destroyed the village of Dargai. The heights were evacuated in the evening, and the withdrawal was attended with some loss on our part. On the 20th the Dargai heights were again captured by the 2nd Division, this time under its own commander. The position was

* Brigadier-General I. S. M. Hamilton, C.B., D.S.O., was originally appointed to command the 1st Brigade, but was disabled by an accident early in October. Subsequently, in February 1898, he assumed command of the 3rd Brigade in place of Brigadier-General Kempster.

strong and well defended, and our loss was severe—over 200 killed and wounded.

The force halted at Karappa for a week in consequence of difficulties of the road and transport. Some loss was sustained owing to the camp being fired into by day and by night.

The advance having been resumed, the Sampagha Pass was captured on the 29th October, and the Arhanga Pass on the 31st, with slight loss on each occasion. The force now descended into the Tirah and encamped at Maidan. Here the main body remained until the 18th November. Reconnaissances were made, village defences were destroyed, and there was some heavy fighting. Between the 18th and the 20th November the camp was moved to Bagh. Expeditions were sent out from here also, and more village defences were destroyed.

On the 26th November Sir W. Lockhart proceeded with a force under General Gaselee to cooperate with the Kurram Moveable column in coercing the Orakzais, and the sections of the Chamkannis which had thrown in their lot with them. The operations were successfully carried out, though with some loss. A number of fortified villages were destroyed and the Orakzais submitted to the terms of the Government. The detached force returned to Bagh on the 6th December.

On the 7th December the expeditionary force commenced its march through the Afridi territory down to the neighbourhood of Peshawar. The first Division marched down the Mastura Valley, and the 2nd, with which went Sir W. Lockhart, down the Bara Valley. The latter division was almost unceasingly engaged during the march, and inflicted great loss upon the enemy; the former division only met with slight opposition. The defences of a large number of villages were destroyed by both divisions. On the 13th December the 2nd Division came into touch with the Peshawar column, and on the 14th arrived at Mamanai. On the 17th the 3rd Brigade moved on to Bara Fort. The 1st Division crossed the Sapri Pass, on the 12th and 13th and, passing through Mamanai, concentrated near Bara Fort on the 17th.

Measures were now taken for reopening the road through the Khyber; for reconstructing the fortified posts destroyed by the Afridis; and for destroying the defences of the villages in the Khyber and the Bazar Valley. Fighting went on every day from the 25th December to the 1st January 1898. The Peshawar column now became the 5th Brigade of the Tirah Expeditionary Force. General Yeatman-Biggs quitted the force on account of ill-health, and died at Peshawar on the 5th January.

During the month of January the Afridis maintained a guerilla warfare. The only operation of importance undertaken by our troops was an expedition sent out to disperse a gathering in the Kajuri Plain. Our loss was somewhat severe. Five officers were killed, among them being Colonel J. Haughton, of the 36th Sikhs, who had distinguished himself throughout the operations.

On the 1st February, hostilities practically ceased, although on a few subsequent occasions piquets and parties of soldiers were attacked by marauders.

In no campaign on the Indian frontier had the operations ever been carried out in such arduous circumstances. The extreme and exceptional difficulties of the country traversed were aggravated by the inclemency of the season. The enemy, active, brave, and in great part skilled marksmen, availed themselves to the utmost of the configuration of the country. The operations were, however, carried through as originally planned, and were completely successful in their result. A most exemplary punishment was inflicted upon the tribes, and their submission was complete.

Subsequently, though not in the year under review, the India Medal, 1895, with various clasps, was granted to the troops which took part in the above operations. A gratuity was also given to every officer, soldier, and follower. Sir W. Lockhart was created a G.C.B., and General Elles a K.C.B., and Colonel Sir B. Blood (who had served as a temporary Major-General), was promoted to the permanent rank of Major-General. Many other officers were suitably rewarded.

A statement of the casualties during the different operations will be found on the next page.

STATEMENT EXHIBITING THE MORAL AND MATERIAL

Casualties during Operations on the North-West Frontier, 1897–98:—

The following STATEMENT shows the NUMBER of CASUALTIES during the OPERATIONS on the NORTH-WEST FRONTIER from the 10th June 1897, to the close of the TIRAH EXPEDITION.

FORCE.	STAFF AND DEPARTMENTAL OFFICERS.				BRITISH TROOPS.								NATIVE TROOPS.																	
					Officers.				Warrant and Non-Commissioned Officers and Men.				British Officers.				Native Officers.				Rank and File.					Followers.				
	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Missing.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Missing.
Tochi Field Force (includes attack on escort at Maizar).	—	—	—	—	—	—	2	—	—	—	127	2	3	1	1	3	1	—	2	3	21	3	61	33	—	2	—	—	1	—
Malakand Field Force -	(c) 1	—	—	(e) 4	2	—	—	8	6	(a) 3	16	36	9	2	—	18	—	—	—	14	71	5	(b) 32	305	—	1	—	—	7	—
Peshawar - - - - -	—	—	—	—	1	—	—	3	7	—	—	11	—	—	—	1	—	—	—	—	9	—	—	55	—	—	—	—	—	—
Mohmand Field Force -	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	2	—	2	29	—	1	—	—	1	—
Kohat-Kurram - - -	—	—	—	—	—	—	—	—	—	—	6	—	—	—	1	2	—	—	—	4	36	6	5	74	—	1	—	—	5	—
Tirah Expeditionary Force	(c) 1	(d) 1	{(c) 1 (d) 1}	(e) 4	12	—	7	31	111	15	121	369	10	1	1	19	5	—	2	14	149	12	148	385	9	22	—	—	18	120
TOTAL - - -	2	1	2	8	15	—	9	42	124	18	271	418	22	4	3	43	6	—	4	36	288	26	248	881	9	27	—	—	32	120

(a) Includes one man of Buner Field Force.
(b) Includes three men of Buner Field Force.
(c) Indicates Indian Service Officers.
(d) Indicates British Service Officers.
(e) „ 3 British Service and 1 Indian Service Officers.

SUMMARY.

—	Killed.*	Died of Disease.	Wounded.	Missing.
Staff and Departmental Officers - - -	3	2		—
Regimental Officers - - - - -	41	12	85	—
British Non-Commissioned Officers and Men -	142	271	418	—
Native Officers - - - - - -	6	4	36	—
Native Non-Commissioned Officers and Men -	314	248	881	9
Followers - - - - - - - -	27	—	32	120
Total - - - - - - -	533	537	1,460	129

* Includes those who died of wounds.

In January, 1898, Baluch Khan, Chief of Kolwa, in Mekran, treacherously attacked a survey party at Hor Kalat, looted its camp and killed some of the survey party. A force rather over 500 strong was despatched from Sind under Lieut.-Colonel R. C. G. Mayne. Other chiefs had joined the Chief of Kolwa, but their forces were completely defeated at Gok Parosh on the 31st January. Baluch Khan and several others were killed. Our loss was three killed and 12 wounded—all natives. Some further operations were unattended with loss on our part and in February the various chiefs submitted.

MILITARY OPERATIONS. Mekran.

APPENDIX.

FINANCE.

TABLES showing the NET REVENUE and EXPENDITURE in the several Provinces of INDIA, and in ENGLAND.

Bengal.

BENGAL.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,997,256	846,497	—	3,843,753	3,022,987	922,964	—	3,945,951
Forest	68,539	68,541	—	137,080	59,406	59,407	—	118,813
Opium	2,441,730	—	—	2,441,730	1,682,359	—	—	1,682,359
Salt	2,468,553	13,424	—	2,481,977	2,443,364	—	—	2,443,364
Stamps	435,378	1,306,134	—	1,741,512	439,821	1,319,464	—	1,759,285
Excise	1,004,184	334,728	—	1,338,912	636,883	636,883	—	1,273,766
Provincial Rates	—	443,651	466,480	910,131	—	457,715	480,748	938,463
Customs	1,444,226	9,342	—	1,453,568	1,435,455	9,464	—	1,444,919
Assessed Taxes	251,891	244,306	—	496,197	255,326	246,389	—	501,715
Registration	77,088	77,087	—	154,175	78,837	78,837	—	157,674
Other Heads	1,201	67,180	15,849	84,230	*—2,466*	52,337	24,196	74,067
TOTAL	11,190,046	3,410,890	482,329	15,083,265	10,051,972	3,783,460	504,944	14,340,376
NET EXPENDITURE:								
Interest	*—155,477*	*—1,716*	*—2,435*	*—159,628*	*—150,555*	*—8,592*	*—1,818*	*—166,965*
Collection of Revenue	303,482	614,889	35,134	953,505	212,017	692,013	35,408	939,438
Railways	*—530,769*	*—448,271*	—	*—979,040*	*—979,206*	—	—	*—979,206*
Irrigation	—	281,229	*—1,148*	280,081	—	254,283	*—1,329*	252,954
General Administration	33,081	175,692	30,746	239,519	29,654	173,735	25,349	228,738
Law and Justice	—	975,238	—	975,238	—	979,892	—	979,892
Police	—	603,064	*—49,306*	553,758	—	620,747	*—43,954*	576,793
Education	—	217,637	114,711	332,348	—	217,793	113,633	331,426
Medical	—	174,155	19,717	193,872	—	185,040	25,851	210,891
Territorial and Political Pensions	100,502	—	—	100,502	114,680	—	—	114,680
Civil Superannuation	*—5,757*	186,418	1,033	181,694	*—11,017*	201,148	2,177	192,308
Stationery and Printing	184,863	97,066	5,727	287,656	205,183	102,673	5,062	312,918
Civil Works	67,359	331,151	375,619	774,129	62,451	275,717	356,330	694,498
Famine Relief and Insurance	—	215,526	28,682	244,208	576,821	273,924	35,819	886,564
Other Heads	30,492	20,084	34,082	84,658	33,556	5,598	41,051	80,205
Provincial and Local Balances	—	*—186,558*	45,053	*—141,505*	—	*—303,250*	24,104	*—279,146*
TOTAL	27,776	3,255,604	637,615	3,920,995	87,584	3,670,721	617,683	4,375,988
Surplus	11,162,270	155,286	*—155,286*	11,162,270	9,964,388	112,739	*—112,739*	9,964,388

NORTH-WEST PROVINCES AND OUDH.

North-West Provinces and Oudh.

	1896–97.				1897–98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	3,749,566	1,189,507	3,274	4,942,347	4,275,231	1,288,934	3,206	5,567,371
Forest	72,029	72,029	—	144,058	68,517	68,516	—	137,033
Opium	48,535	—	—	48,535	47,235	—	—	47,235
Stamps	175,301	525,904	—	701,205	179,209	545,307	—	724,516
Excise	333,787	111,545	—	445,332	336,715	111,804	—	448,519
Provincial Rates	—	157,999	716,482	874,481	—	119,454	810,829	930,283
Assessed Taxes	126,122	119,528	—	245,650	127,245	120,292	—	247,537
Other Heads	21,404	38,856	11,478	71,738	34,007	37,104	10,376	81,487
TOTAL	4,526,744	2,215,368	731,234	7,473,346	5,068,159	2,291,411	824,411	8,183,981
NET EXPENDITURE:								
Interest	73,043	9,566	*—1,713*	80,896	72,882	*—3,090*	*—1,817*	67,975
Collection of Revenue	63,976	501,429	353,092	918,497	66,318	508,206	359,945	934,469
Railways	*—546,475*	—	—	*—546,475*	*—667,188*	—	—	*—667,188*
Irrigation	*—116,839*	*—200,515*	—	*—317,354*	*—120,525*	*—330,910*	—	*—451,435*
General Administration	23,154	136,670	8,068	167,892	23,990	138,154	7,893	170,037
Law and Justice	—	638,137	—	638,137	—	668,001	—	668,001
Police	—	418,977	264,863	683,840	—	437,208	271,095	708,303
Education	—	58,518	123,992	182,510	—	70,535	113,674	184,209
Medical	—	71,774	41,849	113,623	—	89,201	41,842	131,043
Territorial and Political Pensions.	96,735	—	—	96,735	93,758	—	—	93,758
Civil Superannuation	*—10,504*	199,193	1,901	190,590	*—10,571*	209,117	1,883	200,429
Stationery and Printing	*—1,294*	56,233	1,024	55,963	*—1,011*	57,878	1,069	57,936
Civil Works	17,959	224,417	209,574	451,950	13,257	226,490	193,524	433,271
Famine Relief and Insurance	997,691	—	—	997,691	1,072,635	—	—	1,072,635
Other Heads	45,700	7,268	22,125	75,093	43,137	7,749	22,453	73,339
Provincial and Local Balances	—	*—164,740*	*—35,100*	*—199,840*	—	—	25,722	25,722
TOTAL	643,146	1,956,927	989,675	3,589,748	586,682	2,078,539	1,037,283	3,702,504
Surplus	3,883,598	258,441	*—258,441*	3,883,598	4,481,477	212,872	*—212,872*	4,481,477

PUNJAB.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,308,192	946,352	4,267	2,258,811	1,397,249	1,037,086	4,336	2,438,671
Forest	55,363	55,363	—	110,726	53,287	53,287	—	106,574
Stamps	113,765	341,298	—	455,063	107,945	328,120	—	436,065
Excise	163,674	54,741	—	218,415	174,772	58,169	—	232,941
Provincial Rates	—	57,749	351,034	408,783	—	62,650	381,028	443,678
Assessed Taxes	80,015	65,831	—	145,846	83,546	69,314	—	152,860
Registration	20,945	20,945	—	41,890	21,006	21,007	—	42,013
Other Heads	40,184	7,364	1,196	48,744	54,405	8,006	818	63,229
TOTAL	1,782,138	1,549,643	356,497	3,688,278	1,892,210	1,637,639	386,182	3,916,031
NET EXPENDITURE:								
Military Works	61,319	—	—	61,319	79,441	—	—	79,441
Collection of Revenue	52,393	326,206	133,557	512,156	54,848	329,262	135,842	519,952
Railways	*—1,155,681*	—	—	*—1,155,681*	*—1,662,489*	—	—	*—1,662,489*
Irrigation	*—741,779*	*—6,141*	3,931	*—743,989*	*—866,424*	*—9,301*	*—3,964*	*—879,689*
General Administration	17,689	105,672	14,306	137,667	18,631	98,898	14,221	131,750
Law and Justice	—	383,500	*—112*	383,388	—	392,956	*—46*	392,910
Police	—	341,075	*—3,477*	337,598	—	328,362	*—3,574*	324,788
Education	—	70,771	55,713	126,484	—	70,689	56,645	127,334
Medical	—	60,091	32,340	92,431	—	64,455	37,831	102,286
Political	201,602	—	—	201,602	216,567	—	—	216,567
Territorial and Political Pensions.	30,019	—	—	30,019	31,469	—	—	31,469
Civil Superannuation	*—6,733*	97,532	328	91,127	*—6,295*	104,200	1,159	99,064
Stationery and Printing	*—2,418*	39,861	2,694	40,137	*—2,524*	41,318	3,236	42,030
Famine Relief	24,300	31,072	30,777	86,149	3,202	88,918	7,153	99,273
Civil Works	69,178	202,491	64,551	336,220	36,267	185,594	58,035	279,896
Other Heads	64,547	20,544	9,510	94,601	43,624	15,989	8,054	67,667
Provincial and Local Balances	—	*—64,073*	*—46,579*	*—110,652*	—	*—2,278*	167	*—2,111*
TOTAL	*—1,385,564*	1,608,601	297,539	520,576	*—2,053,491*	1,709,062	314,759	*—29,670*
Surplus	3,167,702	*—58,958*	58,958	3,167,702	3,945,701	71,423	*—71,423*	3,945,701

BURMA.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,524,504	862,743	565	2,387,812	488,429	2,149,592	839	2,638,860
Forest	446,789	190,851	—	637,640	360,602	360,602	—	721,204
Salt	140,207	—	—	140,207	156,058	*—686*	—	155,372
Stamps	66,766	95,632	—	162,398	41,886	125,656	—	167,542
Excise	334,389	86,651	—	421,040	208,898	208,898	—	417,796
Provincial Rates	—	—	114,661	114,661	—	—	124,550	124,550
Customs	752,984	2,599	—	755,583	754,213	6,934	—	761,147
Assessed Taxes	50,559	34,429	—	84,988	52,585	45,181	—	97,766
Other Heads	61,565	1,420	31,945	94,930	60,919	2,605	32,586	96,110
TOTAL	3,377,763	1,274,325	147,171	4,799,259	2,123,590	2,898,782	157,975	5,180,347
NET EXPENDITURE:								
Military Works	90,483	—	—	90,483	77,002	—	—	77,002
Collection of Revenue	351,674	342,738	5,005	699,417	124,583	610,199	6,569	741,351
Railways	*—306*	*—121,189*		*—121,495*	*—338,685*	505	—	*—338,180*
Irrigation	75,403	50,380	*—877*	124,906	—	115,953	937	116,890
General Administration	45,270	77,172	1,478	123,920	24,483	96,480	1,759	122,722
Law and Justice	98,130	203,474	—	301,604	—	262,850	—	262,850
Police	567,731	299,783	*—3,786*	863,728	—	853,031	*5,925*	847,106
Marine	45,148	11,303	7,293	63,744	—	36,468	4,114	40,582
Education	14,817	39,660	15,585	70,062	—	59,934	17,218	77,152
Medical	17,829	26,234	7,695	51,758	—	42,664	7,420	50,084
Political	35,346	—	—	35,346	40,229	—	—	40,229
Stationery and Printing	*—1,991*	50,814	—	48,823	*—351*	53,461	—	53,110
Famine Relief	54,975	—	549	55,524	—	62,733	54	62,787
Civil Works	290,642	268,973	88,539	648,154	*—10,847*	509,090	83,125	581,368
Other Heads	31,259	39,957	12,411	83,627	24,731	47,352	13,256	85,339
Provincial and Local Balances	—	780	*—2,475*	*—1,695*	—	169,435	8,075	177,510
TOTAL	1,716,410	1,290,079	131,417	3,137,906	*—58,855*	2,920,155	136,602	2,997,902
Surplus	1,661,353	*—16,754*	15,754	1,661,353	2,182,445	*—21,373*	21,373	2,182,445

FINANCE.

Central Provinces.

CENTRAL PROVINCES.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	219,756	437,350	—	657,106	90,082	574,774	—	664,856
Forest	38,616	38,616	—	77,232	38,849	38,850	—	77,699
Stamps	42,731	128,193	—	170,924	39,594	118,820	—	158,414
Excise	156,591	52,670	—	209,261	129,609	43,559	—	173,168
Provincial Rates	—	19,939	85,014	104,953	—	21,488	75,079	96,567
Assessed Taxes	25,672	24,730	—	50,402	24,945	23,710	—	48,655
Other Heads	64,474	6,280	923	71,677	54,424	14,009	476	68,909
TOTAL	547,840	707,778	85,937	1,341,555	377,503	835,210	75,555	1,288,268
NET EXPENDITURE:								
Collection of Revenue	55,248	174,213	50,437	279,898	53,835	192,525	56,671	303,031
Railways	*—248,629*	—	—	*—248,629*	*—244,508*	—	—	*—244,508*
General Administration	7,574	50,194	3,176	60,944	7,578	51,216	4,011	62,805
Law and Justice	—	115,871	—	115,871	—	142,401	—	142,401
Police	—	147,644	*—10,985*	136,659	—	154,887	*—12,488*	142,399
Education	—	33,920	27,193	61,113	—	30,926	28,362	59,288
Medical	—	30,403	8,417	38,820	—	36,585	8,625	45,210
Territorial and Political Pensions.	24,768	—	—	24,768	24,581	—	—	24,581
Famine Relief and Insurance	295,268	—	8,003	303,271	1,344,977	—	817	1,345,794
Civil Works	851	123,483	22,873	147,207	1,325	145,101	13,600	160,026
Other Heads	2,682	56,007	728	59,417	4,859	64,281	859	69,999
Provincial and Local Balances	—	*—37,408*	*—10,454*	*—47,862*	—	—	*—10,885*	*—10,885*
TOTAL	137,762	694,327	99,388	931,477	1,189,376	821,193	89,572	2,100,141
Surplus	410,078	13,451	*—13,454*	410,078	*—811,873*	14,017	*—14,017*	*—811,873*

Assam.

ASSAM.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	184,807	418,727	—	603,534	101,355	492,052	—	593,407
Opium	45,229	—	—	45,229	45,303	—	—	45,303
Stamps	22,360	67,076	—	89,436	21,531	65,057	—	86,588
Excise	208,564	69,522	—	278,086	207,353	68,958	—	276,311
Provincial Rates	—	—	63,953	63,953	—	—	64,450	64,450
Other Heads	42,468	35,623	*—610*	77,481	41,084	34,033	*—497*	74,620
TOTAL	503,428	590,948	63,343	1,157,719	416,626	660,100	63,953	1,140,679
NET EXPENDITURE:								
Collection of Revenue	17,028	116,283	251	133,562	17,253	118,492	251	135,996
General Administration	5,319	30,542	277	36,138	5,420	29,177	282	34,879
Law and Justice	—	54,996	—	54,996	—	60,544	—	60,544
Police	—	137,187	*—6,958*	130,229	—	132,432	*—7,773*	124,659
Education	—	15,199	20,469	35,668	—	16,297	20,405	36,702
Medical	—	22,167	10,996	33,163	—	22,846	13,331	36,177
Civil Works	31,624	160,282	63,442	255,348	18,899	238,664	62,242	319,805
Other Heads	26,446	57,648	*—699*	83,395	20,945	58,596	*—2,096*	77,445
Provincial and Local Balances	—	*—25,421*	*—2,870*	*—27,791*	—	*—45,580*	5,943	*—39,637*
TOTAL	80,417	568,883	85,408	734,708	62,517	631,468	92,585	786,570
Surplus	423,011	22,065	*—22,065*	423,011	354,109	28,632	*—28,632*	354,109

INDIA, GENERAL, *i.e.*, the Departments and Districts not administered directly by the Lieutenant Governors and Chief Commissioners of the Provinces previously enumerated.

	1896–97.				1897–98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	141,316	—	60	141,376	144,353	—	48	144,401
Forest	49,046	—	—	49,046	61,620	—	—	61,620
Tributes from Native States	214,940	—	—	214,940	209,318	—	—	209,318
Salt	1,544,457	—	—	1,544,457	1,641,908	—	—	1,641,908
Stamps	57,147	—	—	57,147	48,978	—	—	48,978
Excise	107,093	—	345	107,438	98,285	—	371	98,656
Assessed Taxes	143,158	—	—	143,158	144,636	—	—	144,636
Mint	139,598	—	—	139,598	28,117	—	—	28,117
Exchange on Remittance Transactions.	144,233	—	—	144,233	43,970	—	—	43,970
Other Heads	*—6,673*	—	8,429	1,756	40,717	—	8,094	48,811
TOTAL	2,534,315	—	8,834	2,543,149	2,461,902	—	8,513	2,470,415
NET EXPENDITURE:								
Interest	*—1,612,890*	—	*—30*	*—1,612,920*	*—1,628,291*	—	*—138*	*—1,628,429*
Army	9,758,170	—	—	9,758,170	9,326,697	—	—	9,326,697
„ Military Operations	—	—	—	—	3,419,004	—	—	3,419,004
Military Works	848,556	—	—	848,556	782,780	—	—	782,780
Special Defence Works	21,753	—	—	21,753	*—4,020*	—	—	*—4,020*
Collection of Revenue	150,802	—	3,348	154,150	124,787	—	3,409	128,196
Post Office	*—382,074*	—	75	*—381,999*	*—439,894*	—	72	*—439,822*
Telegraph	*—315,777*	—	—	*—315,777*	*—534,852*	—	—	*—534,852*
Railways	*—3,175,369*	—	—	*—3,175,369*	*—3,049,404*	—	—	*—3,049,404*
Irrigation	705,093	—	—	705,093	729,365	—	—	729,365
General Administration	457,350	—	202	457,552	473,216	—	137	473,353
Law and Justice	119,559	—	*—57*	119,502	140,483	—	36	140,519
Police	58,976	—	583	59,559	57,758	—	697	58,455
Marine	131,612	—	—	131,612	116,978	—	—	116,978
Political	577,628	—	24	577,652	485,344	—	24	485,368
Scientific and other Minor Departments.	263,095	—	182	263,277	274,089	—	115	274,204
Stationery and Printing	*—155,619*	—	23	*—155,596*	*—189,343*	—	26	*—189,317*
Civil Works	138,492	—	3,552	142,044	152,516	—	3,256	155,772
Other Heads	55,038	—	2,943	57,981	63,864	—	2,286	66,150
Local Balances	—	—	*—2,011*	*—2,011*	—	—	*—1,407*	*—1,407*
TOTAL	7,644,395	—	8,834	7,653,229	10,301,077	—	8,513	10,309,590
Surplus	*—5,110,080*	—	—	*—5,110,080*	*—7,839,175*	—	—	*—7,839,175*

MADRAS.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,768,754	1,580,477	233,886	4,583,117	3,150,471	1,497,470	228,734	4,876,675
Forest	113,080	113,079	—	226,159	106,401	106,401	—	212,802
Tributes from Native States	449,202	—	—	449,202	449,061	—	—	449,061
Salt	1,630,619	13,358	—	1,643,977	1,673,651	7,698	—	1,681,349
Stamps	196,019	588,060	—	784,079	205,295	626,307	—	831,602
Excise	1,115,689	372,017	—	1,487,706	1,094,935	364,355	—	1,459,290
Provincial Rates	—	—	741,263	741,263	—	—	788,639	788,639
Customs	368,023	6,825	—	374,848	409,143	7,008	—	416,151
Assessed Taxes	141,719	121,867	—	263,586	141,879	122,779	—	264,658
Registration	60,427	60,429	—	120,856	76,360	76,361	—	152,721
Miscellaneous	427	1,594	29,669	31,690	*—2,595*	3,107	31,695	32,207
TOTAL	6,843,959	2,857,706	1,004,818	10,706,483	7,304,601	2,811,486	1,049,068	11,165,155
NET EXPENDITURE:								
Army	3,300,583	—	—	3,300,583	3,154,451	—	—	3,154,451
„ Military Operations	—	—	—	—	105,211	—	—	105,211
Collection of Revenue	349,385	768,497	454,058	1,571,940	345,906	781,041	459,341	1,586,288
Railways	*—517,118*	*— 10,529*	—	*—527,647*	*—564,214*	*—10,854*	—	*—575,068*
Irrigation	*—476,137*	405,328	1,036	*—69,773*	*—565,306*	305,585	647	*—259,074*
General Administration	31,786	99,202	33,234	164,222	26,895	100,719	33,634	161,248
Law and Justice	—	453,477	—	453,477	—	452,861	*—2,400*	450,461
Police	—	419,769	—	419,769	—	422,362	—	422,362
Education	—	147,698	89,993	237,691	—	156,777	86,360	243,137
Medical	—	120,937	140,113	261,050	—	117,768	145,739	263,507
Territorial and Political Pensions.	65,350	—	—	65,350	62,620	—	—	62,620
Civil Superannuation	*—7,158*	152,087	1,185	146,114	*—5,538*	153,711	1,538	149,711
Stationery and Printing	35,315	80,399	—	115,714	40,774	92,433	—	133,207
Famine Relief	—	47,078	9,207	56,285	732,995	159,738	12,578	905,311
Construction of Protective Works.	20,406	—	—	20,406	14,401	—	—	14,401
Civil Works	4,663	302,536	332,316	639,515	4,920	193,163	328,878	526,961
Other Heads	23,093	47,765	*—4,019*	66,839	18,755	44,087	*—4,719*	58,123
Provincial and Local Balances	—	*—200,579*	*—28,264*	*—228,843*	—	*—157,707*	*—12,726*	*—170,433*
TOTAL	2,830,168	2,833,665	1,028,859	6,692,692	3,371,870	2,811,684	1,048,870	7,232,424
Surplus	4,013,791	24,041	*—24,041*	4,013,791	3,932,731	*—198*	198	3,932,731

BOMBAY.

Bombay.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,734,791	1,645,993	16,045	3,396,829	1,738,961	1,921,726	17,395	3,678,082
Forest	151,158	151,157	—	302,315	130,425	130,426	—	260,851
Tributes from Native States	133,624	—17,476	—	116,148	126,506	—17,253	—	109,253
Opium	1,335,682	—4,582	—	1,331,100	967,127	—4,599	—	962,528
Salt	2,222,134	2,791	—	2,224,925	2,286,493	752	—	2,287,245
Stamps	139,828	419,497	—	559,325	140,451	430,436	—	570,887
Excise	772,808	257,603	—	1,030,411	780,344	253,293	—	1,033,637
Provincial Rates	—	—	298,656	298,656	—	—	319,702	319,702
Customs	1,749,451	8,762	—	1,758,213	1,896,327	8,021	—	1,904,348
Assessed Taxes	216,474	183,111	—	399,585	207,672	184,100	—	391,772
Registration	33,076	33,074	—	66,150	30,726	30,726	—	61,452
Mint	—7,428	—	—	—7,428	73,654	—	—	73,654
Other Heads	26,224	—11,273	—7,553	22,254	35,853	—6,186	—4,349	25,318
TOTAL	8,522,678	2,668,657	307,148	11,498,483	8,414,539	2,931,442	332,748	11,678,729
NET EXPENDITURE:								
Interest	—117,279	1,458	—45	—115,866	—118,079	—379	—280	—118,738
Army	3,378,467	—	—	3,378,467	3,297,690	—	—	3,297,690
„ Military Operations	—	—	—	—	250,154	—	—	250,154
Collection of Revenue	400,495	781,309	46,001	1,227,805	406,868	795,654	45,479	1,248,001
Railways	—213,623	—5,642	—	—219,265	—177,636	—6,276	—	—183,912
Irrigation	116,014	2,744	—	118,758	65,685	—2,221	—	63,464
General Administration	43,642	150,981	4,801	199,424	42,222	146,032	14,230	202,484
Law and Justice	—	468,427	—	468,427	—	490,413	—	490,413
Police	—	548,570	—15,049	533,521	—	589,968	—10,308	579,660
Education	—	151,562	139,139	290,701	—	146,018	139,269	285,287
Ecclesiastical	38,345	—	—	38,345	33,594	—	—	33,594
Medical	—	154,820	8,780	163,600	—	339,379	32,048	371,427
Political	65,120	36,174	—	101,294	71,216	32,521	—	103,737
Territorial and Political Pensions.	66,988	—	—	66,988	70,474	—	—	70,474
Civil Superannuation	—6,267	162,134	399	156,266	—6,407	162,454	554	156,601
Stationery and Printing	31,046	73,568	949	105,563	33,200	81,971	1,773	116,944
Civil Works	20,880	238,560	229,138	488,578	12,892	205,637	183,951	402,480
Famine Relief	300,152	23,971	1,536	325,659	942,608	—	2,380	944,988
Other Heads	24,458	29,875	5,083	59,416	41,985	24,944	6,270	73,199
Provincial and Local Balances	—	—221,119	—42,319	—263,438	—	—129,663	—27,628	—157,291
TOTAL	4,148,438	2,597,392	378,413	7,124,243	4,966,446	2,876,452	387,738	8,230,636
Surplus	4,374,240	71,265	—71,265	4,374,240	3,448,093	54,990	—54,990	3,448,093

FINANCE.

NET EXPENDITURE in *England*, with the EXCHANGE thereon.

NET EXPENDITURE.	1896–97.			1897–98.		
	Sterling.	Exchange.	TOTAL.	Sterling.	Exchange.	TOTAL.
	£.	Rx.	Rx.	£.	Rx.	Rx.
Interest	2,528,609	1,670,990	4,199,599	2,859,076	1,610,002	4,469,078
Army: Effective	1,777,419	1,174,579	2,951,998	1,797,423	1,012,164	2,809,587
„ Non-effective	2,355,919	1,556,871	3,912,790	2,400,402	1,351,714	3,752,116
Military Works	24,725	16,339	41,064	69,633	39,212	108,845
Special Defence Works	43,868	28,989	72,857	17,739	9,989	27,728
Collection of Revenue (Stamps, &c.)	50,526	33,389	83,915	43,361	24,417	67,778
Post Office	111,452	73,651	185,103	107,165	60,347	167,512
Telegraph	115,010	76,002	191,012	177,220	99,796	277,016
Railways	5,790,337	3,826,449	9,616,786	5,840,415	3,288,852	9,129,267
General Administration	260,322	172,030	432,352	257,745	145,141	402,886
Marine	212,785	140,615	353,400	213,853	120,425	334,278
Political	24,186	15,983	40,169	24,349	13,711	38,060
Scientific and other minor Departments	29,699	19,626	49,325	25,806	14,531	40,337
Civil Furlough Allowances	225,783	149,205	374,988	187,640	105,664	293,304
Superannuation	1,780,733	1,176,768	2,957,501	1,814,105	1,021,559	2,835,664
Stationery and Printing	41,807	27,628	69,435	54,449	30,661	85,110
Civil Works	65,147	43,051	108,198	51,955	29,257	81,212
Other Heads	30,402	20,091	50,493	62,265	35,064	97,329
TOTAL	15,468,729	10,222,256	25,690,985	16,004,601	9,012,506	25,017,107

SUMMARY.

PROVINCES, &c.	1896–97.		1897–98.	
	Surplus.	Deficit.	Surplus.	Deficit.
	Rx.	Rx.	Rx.	Rx.
BENGAL	11,162,270		9,964,388	
NORTH-WEST PROVINCES and OUDH	3,883,598		4,481,477	
PUNJAB	3,167,702		3,945,701	
BURMA	1,661,353		2,182,445	
CENTRAL PROVINCES	410,078		—	811,873
ASSAM	423,011		354,109	
INDIA GENERAL	—	5,110,080	—	7,839 175
MADRAS	4,013,791		3,932,731	
BOMBAY	4,374,240		3,448,093	
ENGLAND and EXCHANGE	—	25,690,985	—	25,017,107
TOTAL		1,705,022		5,359,211

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EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1898-99.

THIRTY-FIFTH NUMBER.

(PRESENTED PURSUANT TO ACT 21 & 22 VICT. c. 106, s. 53.)

Ordered, by The House of Commons, *to be Printed,*
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STATEMENT

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OF

INDIA

DURING THE YEAR 1898-99.

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India Office,
15 June 1900.

ARTHUR GODLEY,
Under Secretary of State for India.

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STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA

During the Year 1898–99.

[NOTE.—*Throughout this Statement, Receipts and Expenditure are shown in pounds, rupees being converted for the purpose at the rate of Rs.* 15 = £1.]

CHAPTER I.

ADMINISTRATION.

LIST of the holders in 1898–99 of the more important appointments connected with the Administration of India, those appointed during the year being shown *in italics*.

OFFICE.	——	Date of Appointment or Assumption of Charge of Office.	REMARKS.
Secretary of State - - -	The Right Hon. Lord George Hamilton.	5 July 1895	
Permanent Under Secretary of State.	Sir Arthur Godley, K.C.B. -	30 September 1883	
Parliamentary Under Secretary of State.	The Earl of Onslow, G.C.M.G.	5 July 1895	
Members of the Council of India	Field Marshal Sir Donald M. Stewart, Bart., G.C.B., G.C.S.I., C.I.E.	16 December 1885	Re-appointed 16 December 1896.
	Sir James B. Peile, K.C.S.I.	12 November 1887	Re-appointed 12 November 1897.
	Sir Alfred C. Lyall, K.C.B., G.C.I.E.	17 January 1888	Re-appointed 17 January 1898.
	Lieutenant-General Sir Archibald Alison, Bart., G.C.B.	1 January 1889	Period of office expired 31 December 1898.
	Sir Charles H. T. Crosthwaite, K.C.S.I.	3 March 1895	In succession to Sir R. H. Davies.
	Sir Steuart C. Bayley, K.C.S.I., C.I.E.	16 September „	In succession to Sir H. C. Rawlinson.
	F. C. Le Marchant - -	27 February 1896	In succession to Mr. B. W. Currie.
	General Sir J. J. H. Gordon, K.C.B.	1 January 1897	In succession to Sir O. T. Burne.
	Sir Dennis Fitzpatrick, K.C.S.I.	24 April „	In succession to Sir John Strachey.
	Sir J. L. Mackay, K.C.I.E. -	27 April „	In succession to Mr. Hardie.
	Sir John Edge, Q.C. - -	30 March 1898	In succession to Sir C. Turner.
	Sir Philip P. Hutchins -	1 August „	In succession to Sir A. J. Arbuthnot.
Governor-General - - -	The Right Hon. the Earl of Elgin and Kincardine, G.M.S.I., G.M.I.E.	27 January 1894	
	The Right Hon. Lord Curzon of Kedleston, G.M.S.I., G.M.I.E.	6 January 1899	

OFFICE.	——	Date of Appointment or Assumption of Charge of Office.	REMARKS.
	General Sir W. S. A. Lockhart, G.C.B., K.C.S.I. (*ex officio*), Commander-in-Chief.	4 November 1898	Lieutenant-General Sir Charles E. Nairne, K.C.B., was appointed provisional Commander-in-Chief from 20th March 1898.
	Sir James Westland, K.C.S.I.	27 November 1893	
Members of Council	Sir John Woodburn, K.C.S.I.	23 December 1895	Appointed Lieutenant-Governor of Bengal 7 April 1898.
	M. D. Chalmers, C.S.I.	8 April 1896	Resigned 2 April 1899.
	Major-General Sir E. H. H. Collen, K.C.I.E.	27 April „	
	Sir A. C. Trevor, K.C.S.I.	2 May „	
	C. M. Rivaz, C.S.I.	9 April 1898	And temporarily from 18 October 1897 to 19 February 1898.
	Clinton E. Dawkins	29 March 1899	
Lieutenant-Governor of Bengal	Sir Alexander Mackenzie, K.C.S.I.	18 December 1895	Retired 6 April 1898.
	Sir John Woodburn, K.C.S.I.	7 April 1898	
Lieutenant-Governor of the North Western Provinces and Chief Commissioner of Oudh.	Sir Antony P. MacDonnell, G.C.S.I.	6 November 1895	
	J. J. D. La Touche, C.S.I.	6 May 1898	Officiating 6 May to 5 November 1898 during the absence of Sir A. P. McDonnell on leave.
Lieutenant-Governor of the Punjab.	Sir William Mackworth Young, K.C.S.I.	6 March 1897	
Lieutenant-Governor of Burma	Sir R. W. R. Fryer, K.C.S.I.	1 May 1897	Formerly Chief Commissioner.
Chief Commissioner of Central Provinces.	Sir C. J. Lyall, K.C.S.I., C.I.E.	21 December 1895	Appointed Secretary Judicial and Public Department, India Office.
	D. C. J. Ibbetson, C.S.I.	14 July 1898	
Chief Commissioner of Assam	H. J. S. Cotton, C.S.I.	28 November 1896	
Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer-Merwara.	A. H. T. Martindale	9 March 1898	
Resident in Mysore and Chief Commissioner of Coorg.	Lieutenant-Colonel D. Robertson.	10 February 1897	And officiating from 7 December 1896.
Resident, Hyderabad	Sir Trevor J. C. Chichele-Plowden, K.C.S.I.	6 March 1892	
Agent to the Governor-General in Central India.	Lieutenant-Colonel D. W. K. Barr, C.S.I.	20 March 1895	
Resident in Kashmir	Lieutenant-Colonel Sir Adalbert C. Talbot, K.C.I.E.	14 June 1896	
Resident and Agent to the Governor-General, Baroda.	Lieutenant-Colonel N. C. Martelli.	25 July 1895	
Agent to the Governor-General for Baluchistan and Chief Commissioner of British Baluchistan.	H. S. Barnes, C.S.I.	14 June 1896	
Political Resident, Persian Gulf	Lieutenant-Colonel M. J. Meade.	10 March 1898	
Governor of Madras	Sir Arthur E. Havelock, G.C.M.G., G.C.I.E.	18 March 1896	
	Sir H. W. Bliss, K.C.I.E.	9 November 1893	Period of office expired 8 November 1898.
Members of Council	James Grose, C.I.E.	9 January 1894	Died 7 June 1898.
	Arundel T' Arundel	12 June 1898	
	Henry M. Winterbotham	9 November „	
Governor of Bombay	Lord Sandhurst, G.C.I.E.	18 February 1895	
	J. Nugent, C.S.I.	12 July 1896	
Members of Council	Sir E. C. K. Olivant, K.C.I.E.	24 April 1897	
	H. E. M. James, C.S.I.	29 July 1898	
Political Resident, Aden	*Brigadier-General O'M. Creagh*, V.C.	22 February 1899	In succession to Brigadier-General C. A. Cunningham.

LEGISLATION.

Between the 1st April 1898 and the 31st March 1899 20 Acts were passed by the Council of the Governor-General for making Laws and Regulations; four each by the Legislative Councils of Madras, Bombay, and Bengal; three by that of Burma, and one by that of the Punjab. LEGISLATION.

Seven Regulations were also passed by the Governor-General in Council on the recommendation of the local governments of the provinces affected by them, in accordance with the provisions of 33 Vict. c. 3.

The following are the most important of the measures referred to:—

Act VIII. of 1898, "to amend the Indian Paper Currency Act, 1898," merely extends for two years the operation of Act II. of 1898, which provided for the issue of currency notes in India on the security of gold held by the Secretary of State for India in England. Governor-General's Council. Indian Paper Currency Act Amendment Act, 1898.

Act IX. of 1898, "to make better provision for the importation of live stock," empowers the Government to regulate the importation of live stock which may be liable to be affected by infectious or contagious disorders. It does not interfere with the inland trade. Live Stock Importation Act, 1898.

Act XI. of 1898, "to consolidate and amend the law relating to Agricultural Tenancies in the Central Provinces." Central Provinces Tenancy Act, 1898.

Act XII. of 1898, "further to amend the Central Provinces Land Revenue Act, 1881." Central Provinces Land Revenue Act, 1898.

Act XIII. of 1898, "to declare the Regulations of the Bengal Code and Acts of the Governor-General in Council now in force in Upper Burma and to make certain provisions regarding the law in Burma and other matters." The main object of this Act is to place Upper Burma in the same legal position as the bulk of British India. Burma Laws Act, 1898.

Act II. of 1899, "to consolidate and amend the law relating to Stamps," repeals and re-enacts in a consolidated form the various enactments by which the Stamp Act of 1879 has been amended, and introduces certain amendments. Indian Stamp Act, 1899.

Act V. of 1899, "to further amend the Indian Evidence Act, 1892," admits as evidence the opinion of an expert as to the identity of finger impressions. Indian Evidence Act, 1899.

Act VI. of 1899, "to amend the Indian Contract Act, 1872," gives the Courts a wider discretion in dealing with certain inequitable contracts where their powers appeared to be unduly limited. It does not interfere with the freedom of contract where consent is free and the parties contract on a footing of equality. Indian Contract Act Amendment Act, 1899.

Act VIII. of 1899, "to consolidate and amend the law relating to the importation, possession and transport of petroleum and other substances." Indian Petroleum Act, 1899.

Act IX. of 1899, "to amend the law relating to arbitration," is an adaptation to India, or to certain selected areas thereof, of the English Act of 1889. Indian Arbitration Act, 1899.

Act X. of 1899, "to amend the law relating to carriers" with the object of relieving them from some of their liabilities. Carriers Act, 1899.

Act XII. of 1899, "to amend the law relating to the forgery of currency notes and bank-notes" with the object of providing more adequately for their protection from forgery. Currency Notes Forgery Act, 1899.

Act XIV. of 1899, "to further amend the Indian Tariff Act, 1894," imposes countervaling duties on bounty-fed articles at the port of importation with the object of preserving the sugar cultivation and industries of the country, which had been seriously affected by the rapid and large increase in the amount of bounty-fed sugar imported into India, especially from Germany and Austro-Hungary. Indian Tariff Amendment Act, 1899.

Act I. of 1898, "to extend certain portions of the Police Act, 1861, to the Town and Suburbs of Calcutta," is a consequence of the riots which occurred at Chitpur and in the Northern parts of Calcutta on 30th June and 1st July 1897. It authorises:— Bengal. Calcutta Police Act, 1898.

(*a.*) the quartering of additional police in areas which are in a disturbed or dangerous state, and the recovery of the cost from the inhabitants;

(*b.*) the award of compensation to sufferers from misconduct of the inhabitants of such areas.

LEGISLATION.

Bengal Tenancy (Amendment) Act, 1898.

Act III. of 1898, "to amend sections 30, 31, 39, 52, and 119 and chapter X of the Bengal Tenancy Act, 1885." Its objects are—

(1.) to clear up doubts and difficulties of procedure which have arisen in the working of chapter X (Record of rights and settlement of rents) of the Bengal Tenancy Act, 1885;

(2.) to facilitate the settlement of rents when undertaken on a large scale, either for the purpose of settling land revenue or on the application of private individuals;

(3.) to amend the substantive law relating to the enhancement and reduction of rents, so as to make the provisions of the law workable and to give effect to the intention of its authors, regarding certain points on which it has been found in practice to be inoperative.

Bombay.

City of Bombay Improvement Act, 1898.

Act I. of 1898, "for the improvement of the City of Bombay and to provide space for its future expansion," provides for the improvement of the City by forming new and altering existing streets, by removing or altering insanitary buildings, by providing open spaces for better ventilation and for recreation, and by constructing new sanitary dwellings for certain classes of the inhabitants and for the Presidency police. It also makes provision for the future expansion of the City by acquiring and laying out vacant lands and by reclaiming and laying out parts of the foreshore of the Island. It provides for the appointment of a Board of Trustees with special powers to carry out the scheme.

Burma.

Burma Municipality Act, 1898.

Act III. of 1898, "to amend the law relating to municipalities in Burma," effects a thorough revision of the law relating to municipalities in the province based upon the experience of the past thirteen years.

Lower Burma Town and Villages Lands Act, 1898.

Act IV. of 1898 "to declare and amend the law relating to interests in land in towns and villages in Lower Burma." It provides for the assessment of revenue in them and deals with other subsidiary matters connected with them.

CHAPTER II.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, SANITATION, HOSPITALS, &c.

Local Self-Government.

In every province of India a great deal of local business is done, considerable funds are raised and spent, and valuable service to the public is performed, by local bodies, which are constituted and exercise their functions under different enactments. Municipal committees exist in most towns of the Indian Empire, and have charge of municipal business generally, including the care and superintendence of streets, roads, water supply, education, and hospitals. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, schools, hospitals, and dispensaries in rural districts. Bodies of port trustees have charge of harbour works, port approaches, and pilotage. There are, besides, less numerous local bodies discharging similar duties in towns other than constituted municipalities, and in cantonments. The importance of the work of local administration performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1898–99, apart from loans, sales of securities, and such-like extraordinary receipts, was £2,896,520. The sources of this income and the yield of each source are shown in the table on the last page of this chapter. The revenue enjoyed by the local and district boards during the year was £3,162,000, inclusive of granst and transfers from provincial revenues. Of this total, the local rates levied on land, "for expenditure on roads, schools, hospitals, and general purposes," gave a gross yield of £2,147,000; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, the rent of corporate property, and the grants made by Government for educational and medical purposes.

The income of the port funds, under the management of port trustees and local bodies, exclusive of loans, amounted in 1898–99 to £1,139,000.

The revenue of cantonment funds amounted to £148,000; that of town and bazaar funds came to £59,600; that of miscellaneous funds was £137,700.

Thus, the revenue from all sources managed by the various local bodies amounted in 1898–99 to about £7,542,800; of which total about one-third is shown in the accounts of the Government of India and in the financial section of this Statement.

MUNICIPALITIES.

Municipalities. General.

Throughout India the cities and larger towns manage their own local affairs, through the agency of commissioners or committees appointed from among the citizens. The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province, and of the three presidency capitals, Bombay, Calcutta, and Madras. In most places the majority of the commissioners or committees are elected by the townsfolk under legal rules, but in every town some, and in a few minor towns all the members, are appointed by the Government. In almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

MUNICIPALITIES.

The sources of municipal revenue are, mainly,—

House tax,	Water rates,
Tax on rent,	Conservancy rates,
Octroi duties,	Rents of public lands and properties,
Bazaar or market rents,	Public gardens and parks.
Carriage tax,	

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation, and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the commissioners or committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, is not keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases.

Bengal. Calcutta.

The Calcutta Municipality consisted during the year of 50 elected and 25 nominated commissioners, but its constitution was under consideration and a new scheme was proposed under which the number of commissioners will be less, and the proportion of elected to nominated members will be smaller. The executive consisted of a general committee of 18 members with sub-committees, eight standing committees, and a number of special committees, appointed as occasion arises. There were 30 general meetings, and 222 meetings of committees, and the percentages of attendance among elected members, members nominated by Government and commercial representatives, was 52, 42, and 41 respectively. The income of the year was £321,700, or rather more than in 1897-98; £122,600 was derived from the general rate, and £138,000 from rates for sewage, water, and lighting; the assessed valuation of the town rose to £1,425,000, and the incidence of taxation per head of population was slightly under Rs. 6, equal to 9*s*. The expenditure against income was £320,000, of which £81,000 was for interest and other charges in connection with the water supply, £30,000 for lighting, and £178,000 for general purposes, including drainage and conservancy. Two new loans were successfully floated during the year; one of 30 lakhs (£200,000) for 19 years for drainage and other projects, and one of 4 lakhs (£26,666) for plague purposes, both at 4½ per cent.; £19,600 was repaid to the Government; and the total outstanding debt at the end of the year was £2,000,000. The payments for interest and sinking fund amounted to £119,000, which is well within the legal limit of 10 per cent. on the valuation of the city.

During the last eleven years the suburban area of the town has been supplied with an excellent water supply at a cost of over £120,000, drainage schemes for the suburbs have been made, and are in course of execution, polluted tanks have been destroyed, and burial grounds improved, and roads opened out at an expense of nearly £60,000, besides other large and important works. Taking the town and suburbs together, £1,118,000 has been spent from capital and revenue on works of improvement, with the result that the death rate has fallen from 42·7 to 35·8 per mille. The year was an exceptionally healthy one but for the occurrence of two outbreaks of plague, in the first of which 192, and in the second 1200 deaths are reported. There was a great exodus of the people from the city during the first of the epidemics, which occurred in the spring, and a smaller movement also in the second or autumn outbreak. A Government grant of £23,300 was received and applied for plague purposes in addition to the loan mentioned above.

Interior of province.

In the interior of Bengal there were 151 municipalities, or one more than in the previous year. The population living within municipal limits was 2,722,000 persons, or 3¾ per cent. of the whole population of Bengal, excluding Calcutta. The number of ratepayers entitled to vote at municipal elections was 469,000,

or about one in six of the municipal population. The municipalities varied in size, from Patna with 168,000, to Nalchiti with 1,675 inhabitants; the majority, however, had populations of between 5,000 and 15,000 inhabitants. In all but 27 of the municipalities two-thirds of the commissioners are elected by the rate-payers; in the rest the Government, in consequence either of the backwardness of the locality or of the intensity of party feeling, exercises the power of nomination. MUNICIPALITIES.

The number of meetings held during the year was 2,609, against 2,674 in the preceding year; 39 municipalities held more than 20 meetings each, while 15 failed to hold the prescribed minimum of 12 meetings. The attendance at meetings was higher than in last year; in 102 towns, as compared with 78 in the previous year, the attendance was, on the average, more than 50 per cent. of the members. The average incidence of municipal taxation rose from 15 to 15⅔ annas (an anna being equal to a penny) per head of the population; and ranged from 5½ rupees in Darjeeling to 3⅔ annas in a small town of the Midnapur district; in 39 towns the incidence exceeded one rupee per head; in 53 towns the incidence was less than half a rupee per head. Exclusive of loans and extraordinary receipts, the total income was £220,000, of which £178,000 came from municipal taxation; and £16,000 were borrowed during the year. The total expenditure was £240,000. The chief heads of outlay were, public safety (fire establishments, lighting, police, &c.), £18,000; water supply and drainage, £25,000; conservancy, £71,000; hospitals, dispensaries, and vaccination, £24,000; buildings and roads, £34,000. The chief water-supply works of the year were at Maniktola, Cossipore, and Berhampur, but the capital expenditure under this head was much reduced, owing to the completion of the Howrah and Bhagalpur schemes. Smaller sums were spent in other towns on new water supplies, and private individuals have in many cases contributed the necessary funds. There was also a decline in the capital expenditure on drainage works, except in Serampore and Jamalpur. Schemes were under consideration for Cossipore and Maniktola, and the Krishnagar scheme was adopted. The Howrah drainage project, which was to cost £450,000 capital outlay, and working charges of £28,000 has been found too costly; but it is hoped that something may be done there.

There are 104 municipalities in the North-Western provinces, with a total of 1,613 members, of whom 1,245 were elected, 312 were officials, and 1,409 were Natives. Seats were contested in 71 municipalities, and a fair amount of interest was shown in many cases, though in some towns, notably Bareilly and Meerut the number of voters was very small. The boards generally elect their chairman, but in six important towns, Agra, Allahabad, Benares, Bareilly, Lucknow, and Moradabad, the district magistrate is *ex-officio* chairman. Only four small municipalities held less than 12 meetings in the year, excluding meetings of sub-committees. The income of the municipalities, excluding loans, was £304,000, of which over £240,000 accrued from taxation. Of the taxation revenue, the octroi duties yielded £224,000, compared with £197,000 in the previous year. The year was generally one of recovery from the effects of famine and contraction of trade, and the above figures show that receipts are returning to their former levels. The expenditure, excluding debt heads, was £280,000, of which £109,000 was spent on water supply, drainage, and conservancy. North-Western Provinces and Oudh.

There were in the Punjab 148 municipalities, besides 36 notified areas, which have a modified form of municipal government. Elected members serve on 111 of the municipal committees, the proportion being generally two elected to one nominated member; no members are elected to the committees of the notified areas. The members were divided as follows: — Punjab.

—	Elected.	Ex-officio and Nominated.	Total.	Natives.	Officials.
Municipalities - - - - -	814	856	1,670	1,542	329
Notified areas - - - - -	—	119	119	105	55

MUNICIPALITIES.

The number of vacancies to be filled during the year was 215, of which 86 were filled after contested elections. In many towns elections were keenly contested; the number of electors appearing at the polls averaged 57 per cent. of the constituents. Thirty-eight of the committees failed to hold the prescribed minimum of 12 meetings, but the working of the committees in the larger towns throughout the province is reported to have been good. The total income of the municipalities, excluding loans and extraordinary receipts, rose from £288,000 to £304,000, of which £204,000 was raised by octroi duties. The latter figure shows a complete recovery from the famine, as it is slightly higher than in 1895–96. The incidence of taxation per head of the population was 23½ annas (about 2*s.*). In the notified areas, £1,600 was raised by taxation, or 3 annas per head of the population, in addition to £1,200 from other sources. The expenditure was £304,000, including £44,000 on fire, lighting, and police, £42,000 on education, £42,000 on conservancy, and £30,000 on roads and buildings. The expenditure of the notified areas was £2,600. The Government advanced £21,000 on loan during the year, and £11,400 was repaid; the debt outstanding at the end of the year was £257,700. The cash balances at credit of the municipalities and notified areas rose from £68,000 at the beginning to £80,800 at the end of the year.

Burma.
Rangoon.

In the town of Rangoon there is a municipal committee, for the most part elected by the various national communities, with a salaried president. There was a general election during the year, at which, among the native communities, there was only one contest; in the European community 14 candidates contested five vacancies, twelve of the members were natives, and three were officials. The average attendance at general meetings was 64 per cent. The ordinary revenue amounted to £127,000, which was slightly in excess of last year's figures, but the total receipts were lower by £4,500, owing to a new adjustment by which the school grants, £4,200, were paid direct by Government. Direct taxation accounts for £73,500, showing an increase owing to additional assessments; the taxes are a 9 per cent. general tax, and water, lighting, and scavenging taxes, and they amount to Rs. 5 per head of the estimated population for the year. Extraordinary receipts, including loans for the town lands reclamation fund, amounted to £72,000. The ordinary expenditure was £98,600, showing a decrease, largely in connection with roads; the extraordinary expenditure was £91,000, of which £20,000 was spent on reclamation works, and £3,200 on a rubbish disposal scheme, and the rest on loan charges, advances, &c. The debt of the municipality at the end of the year was £288,000. The birth-rate was 15·25 per thousand of the estimated population, the death-rate 35·28, both figures being higher than in the previous year. In connection with the reclamation work, a block was equipped with roads and drains during the year, but little fresh ground was reclaimed. In view of the proposed resumption by the Government of the rents of town lands, the municipality have represented that the reclamation work would be gravely hampered by the loss of this source of income, and it has been proposed to grant the rents to the municipality for a term of years.

Interior of Province.

A new Municipal Act came into force in Lower Burma and Mandalay during the years 1898–99, which involved no fundamental changes, but embodied numerous amendments in administration. The number of municipalities was 41, as in the previous year, and they contained 524 members, divided thus:—

Elected - -	109	Non-officials -	336	Asiatics - -	371
Ex-officio and nominated.	415	Officials - -	188	Europeans -	153

The elective principle was extended to four fresh towns, making 11 in all, and the number of elected members rose from 70 to 109. Elections took place in several municipalities, but with the exception of Mandalay no interest was shown in them. Two committees held less than 12 meetings in the year; the average attendance at each meeting was 60 or more per cent. of the members

in 26 towns, and in only four towns was below 50 per cent. The income of the municipalities was £128,800, of which £50,400 came from taxation and ferry tolls, and £61,500 from markets and slaughter-houses. The ordinary expenditure rose from £119,000 to £145,000, including special charges for a lighting scheme at Moulmein, the police at Mandalay, a new market at the same town, and higher expenditure on conservancy and hospitals. Three small loans were raised from Government during the year, and the Moulmein municipality raised £5,300 in the open market in connection with its lighting scheme. Investigation of the financial position of the towns in debt to Government shows that they are all solvent and in a position to repay the loans; but the municipal funds are for the most part small, only six including Rangoon, exceeding £6,500 per annum. The incidence of taxation and tolls per head of population outside Rangoon, was 18¾ annas, slightly higher than in 1897–98. The balances in hand at the end of the year amounted to £33,000, and the outstanding debt was £17,000. Besides municipalities there are seven other places in Lower Burma where town funds are raised, and are managed by committees nominated from among the townsfolk, the amount during the year being £7,000. Expenditure does not keep up with income in these towns, and a balance of £4,800 has been accumulated. MUNICIPALITIES.

In the Central Provinces one municipality was withdrawn from the operation of the Act, and the number of municipalities was thus reduced to 52. The number of members was 626, of whom 444 were elected; general elections were due in most of the towns, but were held in only 13 of them. The municipal incomes amounted to £98,600, of which £56,600 accrued from octroi duties, which were affected by the favourable marriage season. The expenditure was £98,000, of which £52,000 was spent on public health and convenience, including £10,400 on water supply works at Bhandara and Wardha, and £11,000 was spent on hospitals and plague operations. Central Provinces

The number of municipalities in Assam, including two stations and three unions, remained at 14, but only one of them (Sylhet) has a population of more than 10,000. Their working is reported to have been satisfactory. The total number of members was 141, of whom 51 were elected in six of the towns, 113 were natives, and 53 were officials. The income fell from £16,800 to £15,000, owing to smaller grants by Government; but there was a general increase under all taxation heads. The total expenditure was £15,700, of which £7,500 was on public health and £4,400 on public works. The incidence of taxation per head of population ranged from 6 annas at Golaghat to Rs. 3¼ at Shillong. Assam.

On the municipality of Madras there are 33 Commissioners, of whom 24 are elected by the ratepayers, who numbered 5,615 in the year 1898–99, or 12·4 per millie of the inhabitants. Two elections were held, at which 60 per cent. of the registered electors came to the poll. Seven Commissioners were Europeans and nine were officials. At 25 meetings of the Commissioners the average attendance was 23; only one Commissioner attended less than 10 meetings during the year. The total income of the year, apart from loans and Government contributions, was £84,600, or £6,000 less than in the preceding year; of this total, £64,000 accrued from taxation, which fell on the population at the rate of Rs. 2¼ per head; the principal tax is one of 10 per cent. on buildings and lands. The total expenditure came to £119,500, of which £25,500 were spent on water supply and drainage works, and £32,500 on conservancy. The drainage system in Mylapur was opened during the year, and is a great success; further drainage is, however, urgently needed in other quarters of the city. The water supply from the Red Hills was plentiful, but the quality of it is reported as being suspicious. The death-rate rose from 35·5 per thousand in 1897 to 44·8 per thousand in 1898, owing, it is said, to general causes, combined with a small epidemic of cholera. Seven deaths only occurred from plague, but in view of the possibility of a plague epidemic various measures were taken, and a temporary loan of two lakhs of rupees (£13,333) was taken from the Government for this purpose. Madras. Madras City.

MUNICIPALITIES.

The outstanding debt of the municipality amounts to £238,000, against which must be set the sinking fund, which is now £81,400, and investments in Government securities amounting to £86,000.

Interior of the Madras Presidency.

The number of municipalities in the interior of Madras was 58, as in the previous year. The councils were partly elective in 36 of these towns, 2·8 per cent. of the population being registered as voters, and in 39 towns the councillors elected their own chairman. On an average 29 meetings were held by each council, and the average attendance of councillors at meetings was 8·4, as compared with 8·8 in the previous year. There were 850 municipal councillors in all, divided thus:—

Elected - -	372	Non-officials -	653	Indians -	703
Nominated -	478	Officials - -	197	Europeans and Eurasians -	147

An increase of 7 per cent. in the receipts from taxation was caused by the raising of the rate of the tax on buildings and lands in several towns. The expenditure was considerably below both the figures for 1897–98, and the budget estimate for 1898–99, and it resulted in an increase of the closing balance from £34,000 to £44,800. The chief points in which the decrease occurred were new water supply works and advances. Under the former it was due to an erroneous estimate, and not to suspension of work, which was in progress during the year on the Coconada, Tirupati, and Vizagapatam schemes. In 1897–98, £32,600 had been advanced for these works, and there was no need for high advances in 1898–99. The sanitary condition of most of the towns is not satisfactory, but the councils are reported to be generally alive to the importance of improvement in this direction.

Bombay. Bombay City.

The Municipality of Bombay is administered by a corporation consisting of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. A new corporation came into office in April 1898.

The revenue realised was £477,000, or £30,000 more than in 1897–98; the receipts from the general tax, £148,000, account for £11,300 of this increase, owing to the tax having been raised from 8½ to 9½ per cent. The water tax receipts rose from £88,500 to £100,000, as the bills for the last quarter of 1897 were credited in 1898–99; under town duties there was also a net increase from £63,300 to £74,600, due to the doubling of the duties on grain, flour, and firewood, in spite of a decrease of £15,300 in the receipts from sugar. The ordinary expenditure was £468,700, excluding plague, or about the same as that of the previous year, if from the latter is left out a sum of £33,300 spent from revenue on plague charges; but there must be added to the expenditure of 1898–99, a sum of £54,000 written off the amount advanced in previous years for the purchase of frontage lands, so that, after allowing £33,300 as rebate on account of the plague expenditure of the previous year, the expenditure was £489,300. Of this, £94,000 was spent on public works, £112,000 on public health, and £165,000 on debt services. The outstanding debt at the end of the year was £2,790,000; it had been intended to raise £326,700 by permanent loans, but the state of the money market was unfavourable, and recourse was had to the previously arranged temporary loan of £253,000 which was renewed by the bank of Bombay. The expenditure from loan funds during the year was £118,000 for plague purposes, £30,000 on sewerage works, and £31,500 on minor sanitary works. £66,700 was received from the Local Government during the year, and £30,000 at the end of the year, as provisional advances for plague purposes. The death-rate from all causes in the city was 63 per mille in the year 1898, compared with 58 per mille in 1897, and 41 per mille in 1896; the plague death-rate was 22 per mille, and the death-rate from cholera 7 per mille, compared with 13 and 15 per mille respectively in 1897.

The new City Improvement Trust was appointed at the end of 1898, and no demolition had been begun up to the end of 1898–99. Four schemes have been taken in hand, including a Nagpada improvement scheme, and projects

for three arterial streets through insanitary areas. The cost of these schemes was estimated at £1,213,000, the recoupment by value of surplus lands at £756,000, and the net cost at £457,000. MUNICIPALITIES.

The municipalities in the interior of Bombay, numbered 165, and the total number of municipal commissioners was 2,328. The constitution of the committees was as follows:— Interior of the Bombay Presidency.

Elected	897	Officials	621	Asiatics	2,158
Nominated	1,431	Non-officials	1,706	Europeans	170

All the municipalities except Bandra and Bassein held the requisite number of meetings, and the average attendance in most districts improved. The income of the municipalities was £356,000, excluding loans and advances, and of this total £273,000 was raised by taxation, the incidence per head of population being Rs. 1½ in the Northern, Rs. 1⅝ in the Central, Rs. ⅞ in the Southern Divisions, and Rs. 2¾ in Sind. Octroi duties accounted for £164,000 of the revenues, compared with £135,000 in 1897–98, an increase which is ascribed to a good season, the removal of plague restrictions, and a large number of marriages. The expenditure, also excluding loan heads, was £377,000, of which £169,000 was spent on public health and convenience, and £45,000 on education. The loans raised amounted to £32,000 from the Government and £20,000 in the open market, while £16,600 were paid off, and the closing balances were £74,000. The plague expenditure was £19,000 in Karachi and £10,600 in the Northern division, besides indirect expenditure and losses owing to the prevalence of the disease.

The number of municipalities in Berar was 12, as in the previous year, and in seven of these towns the majority of the municipal committees are elected by the ratepayers. There were altogether 171 members of these committees, at the end of the year, divided thus:— Berar.

Elected	80	Non-officials	117	Asiatics	143
Nominated	91	Officials	54	Europeans	28

Twenty-five vacancies occurred, for which, out of 6,198 registered voters, 768, or only 12½ per cent. of the electors, recorded their votes. The total income of the municipalities was £14,400, of which £6,000 came from rates and taxes. The incidence of taxation stood at the low figure of 8¾ annas per head of population. The total expenditure was £16,000, or £3,200 less than in the previous year, a falling off which is partly accounted for by the closing of famine relief expenditure. No new public works were in progress, but two of the municipalities are contemplating drainage schemes, and have accumulated funds for the purpose.

DISTRICT BOARDS.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; but in most provinces district committees had for many years given assistance or exercised control in the administration of local roads, local hospitals, and local schools. In all the more advanced provinces district boards are now constituted under different enactments. In Madras, the boards have the power of proposing local taxation, and in Bengal they are empowered to decide at what rate, within the legal maximum, the road cess shall be levied in each district; but for the most part the district boards do not possess powers of taxation; they administer funds, or the yield of specific imposts, made over to them for DISTRICT BOARDS. General.

DISTRICT BOARDS.

expenditure on roads, schools, hospitals, and sanitation, within their jurisdiction. In most provinces the district boards delegate much of their detailed work to sub-divisional, or minor boards, which are constituted under the law, and are responsible for subdivisions or parts of a district.

Bengal.

In Bengal there were 38 district boards and 105 local boards, as in the previous year. On the district boards were 795 members, of whom 328 were elected by the local boards; on the local boards were 1,259 members, of whom 417 were elected. Out of the total number of 2,054 members, 1,644 were non-officials and 1,761 were Indians; 925 were landholders and planters, and 519 lawyers. There were also 57 union committees entrusted with minor duties, general elections were held during the year, but aroused little interest. Each district board held on the average 15 meetings; and the average attendance at each meeting was 10·5 members. The local boards held about 1,100 meetings, but nearly one-fifth of them were adjourned for want of a quorum, and the average attendance was only five members. The income of the district boards amounted to £446,000, including £264,000 from the road cess and £34,000 contributed by provincial funds. The expenditure was £444,600, of which £79,000 was spent on education and £268,000 on civil works, such as £8,600 on new roads in Muzaffarpur, and similar items.

North-West Provinces and Oudh.

There were, as in the previous year, 44 district boards and four district committees in the North-Western Provinces and Oudh, but there was an important change in their constitution. Up to this year all the members of the local boards of sub-districts were, as such, members of the district board, but the Local Government has now exercised the power reserved to it of notifying that district boards shall consist of members elected or nominated from the members of the local boards. The effect is to render the district boards less unwieldy, the total numbers of the 48 boards and committees having fallen from 1,538 to 995 members, of whom 639 were elected, and 88 were Europeans. The magistrate of the district is chairman of each district board. The boards held on an average, 11 meetings, and the committees, 9 meetings, with an average attendance of 8 and 10 respectively. The want of interest on the part of a large proportion of the members is still noticeable. It is hoped that when the members realise the advantages given to them by the new system of local finance, described in last year's statement, their interest in the work may be increased.

The income of the boards and committees during 1898–99 was £324,000, of which £262,000 came from taxes; the expenditure was £286,000, including £89,600 on education, £153,000 on drainage, waterworks, buildings, and roads, and £36,000 on medical services and sanitation. The net contribution by the boards to the Local Government was £12,600.

Punjab.

The number of district boards in the Punjab was 30, and the number of members at the end of 1898–99 was 1,261; there were also 52 subordinate local boards, with 969 members. In 12 districts, most of which are situate on or near the frontier, the district boards are composed entirely of nominated members, and in other districts the members are in part nominated or *ex officio*, and in part are elected delegates from the local boards. The members are thus classified :—

——	Ex-officio.	Nominated.	Elected.	Natives.	Europeans and Eurasians.	Total.
District boards - -	218	619	424	1,175	87	1,261
Local boards - -	58	374	537	963	6	969

As in previous years, it is noted that little or no interest was taken in elections for the local boards, and that the people prefer direct appointment. Thirteen district boards and 47 local boards failed to hold the required

minimum number of meetings. The working of the district boards was on the whole good; but that of the local board was not satisfactory. In many cases there is not sufficient work to keep both district and local boards employed; 14 local boards were abolished during the year, and similar steps are in contemplation in other parts of the province. The year's income of all the boards came to £209,000, of which the chief items were £162,800 from local rates, and £18,000 from civil works. The total expenditure of the year was £202,000, of which the chief items were education, £44,400; hospitals, vaccination, and other medical or sanitary charges, £26,400; and roads and other public works, £62,800. The closing balances of the district funds taken together amounted to £50,600, which was £8,200 above the opening balance; but in five cases the expenditure on plague measures resulted in the reduction of the balance below the prescribed minimum, and in two cases, owing to this reason, there was a deficit which was made good out of provincial funds. DISTRICT BOARDS.

In the Central Provinces district councils and local boards have been established everywhere except in the backward tract of Mandla, and their numbers were 17 and 53 respectively, as in the previous year. Particulars of their constitution are as follows:— Central Provinces.

Elected members -	886	Non-officials	1,057	Asiatics - -	1,174
Nominated or *ex officio* - -	312	Officials -	141	Europeans or Eurasians -	24

General elections were held in eight districts, and bye-elections elsewhere, at which it was observed that more interest was shown by the agricultural than by the mercantile class. Two of the councils held less than the prescribed minimum of meetings, and the average attendance improved, though it was in few cases more than 50 per cent. Of local boards, 23 held less than the minimum of meetings, which was better than in 1897–98; and the average attendance improved. The income of the councils and boards, excluding deposits and advances, was £55,000, of which £32,000 were yielded by local rates and £6,700 by Government contributions. The expenditure, also excluding deposits and advances, was £52,000, including £19,500 on education, £1,000 on famine relief, and £16,000 on civil works. Generally speaking it is considered that sufficient attention was paid to road construction and repairs, and that the balances in hand are by no means excessive in view of the needs for famine purposes.

In Assam there are 19 local boards, containing 373 members, as follows:— Assam.

Nominated -	173	Ex officio - -	59	Europeans and	
Elected -	141	Natives - -	227	Eurasians -	146

The European non-official members are elected by the tea industry, and native non-official members are generally nominated by the Deputy Commissioners. The income of the boards was £78,800, or rather more than in the previous year; the local rates yielded £44,000, or £800 above their yield in 1897–98. The boards spent £78,200; 64 per cent. of the total expenditure was devoted to public works, 18 per cent. to education, and 8 per cent. to sanitary and medical objects.

In Madras there were 21 district boards and 80 taluk boards, as in 1897–98; the number of village unions rose from 376 to 381. The sanctioned number of members of the district boards varies between 24 and 40, one half being elected by the taluk boards, where such exist; the average attendance at meetings of the boards was 54 per cent. of the members. The taluk or sub-divisional boards are not elective, the members being appointed by the Government, but some of them elect their vice-presidents; the average attendance at meetings was 56 per cent., and most of the boards met each month as required by the Act. The village unions were occupied chiefly with local sanitation and the management of elementary schools, markets, and other Madras.

District Boards.

local institutions entrusted to them by the taluk boards. The sanctioned number of members of all the unions was 3,728, and the average number of meetings was 13.

The income and expenditure of the boards and unions was as follows:—

	1897-98.		1898-99.	
	Income.	Expenditure.	Income.	Expenditure.
	£.	£.	£.	£.
District boards - - - - -	259,100	262,100	276,300	282,200
Taluk boards - - - - -	263,400	258,400	250,700	248,200
Village unions - - - - -	39,500	39,100	40,000	39,400
TOTAL - - -	562,000	559,600	567,000	569,800

The balances in the possession of all the funds at the end of 1898–99 were £106,700. The chief source of income is the land cess, which yielded £542,000; the chief items of expenditure were: Public works, £272,000; education, £72,000; sanitation, £122,000, including £21,000 for plague precautions. Of the public works expenditure, £35,000 was on new roads, &c., and the rest for maintenance.

Bombay.

In Bombay and Sind there were 23 district and 205 taluk (or subdivisional) boards. All these boards are partly elective, except in three backward districts and seven exceptional subdivisions. There were altogether 3,556 members of all boards, of whom 1,601 were elected. The total number of meetings held during the year was 1,261, and the average attendance of members was rather better than in the preceding year. The income of the local boards was £304,000, of which £186,000 was derived from provincial rates and £60,000 from Government contributions. Their expenditure was £310,600, including £89,000 on primary schools, £136,000 on civil works, and £24,000 on plague. The incidence of the taxes received by the local boards per head of the population was $2\frac{1}{6}$ annas in the central division and between 3 and $3\frac{1}{2}$ annas elsewhere.

Berar.

In Berar there were six district and 21 taluk or subdivisional boards. Each taluk board consists of 18 members, of whom 12 are elected by the people. The members of the district boards are, for the most part, elected by the taluk boards. The members of the 27 boards were divided thus:—

	TOTAL.	Nominated.	Elected.	Non-officials.	Officials.	Native.	European.
District Boards - - -	156	32	124	123	33	149	7
Taluk Boards - - -	373	129	244	344	29	373	-

All the district boards held more than the minimum number of four meetings prescribed by the rules. At the elections for vacancies on the taluk boards, 8·3 per cent. of the qualified electors voted. The income of the local boards was £45,800, of which £21,500 accrued from rates, and £6,600 from assessed taxes. The total expenditure was £43,000, of which £12,400 was spent on education and £19,200 on civil works, chiefly roads and wells. It is reported that the district boards have been working with increased care and a greater sense of responsibility.

Burma.

In Burma local boards have not been constituted. In Lower Burma 19 district cess funds had an income of £119,500, as compared with £110,000 in 1897–98. The expenditure was £114,400, of which £54,500 occurred under the head of Civil Works and £11,000 under

Education. There were 16 district funds in Upper Burma, with a total income of £24,600, and an expenditure of £27,500. The balance to the credit of the district funds at the end of the year was reduced to £8,400. DISTRICT BOARDS.

PORT TRUSTS.

The custody of harbours and the administration of harbour and shore affairs are placed by law in the hands of Port Commissioners, who are appointed for each of the chief ports. Members of these Port Trusts are for the most part appointed by the Local Governments, and are usually representative of the various Indian and commercial interests of the place. Port trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The Local Governments and, so far as can be judged, the public, are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of district or local boards, receive any fees for the performance of their local duties. PORT TRUSTS.

The year 1898-99 was one of exceptional prosperity to the Bombay Port Trust. The revenue amounted to £347,600, about £13,000 higher than in 1895-96, the highest on record; and a surplus of £10,000 was realised. The improvement in revenue, compared with that of 1895-96, the two intervening years being set aside as abnormal, was £26,000; the increase in expenditure necessitated by the larger volume in trade, was £20,500. The receipts for wharfage fees at docks and quays were £165,000, and from other sources, such as port dues, warehouse fees and rents, &c., £182,000. Wheat exports had almost ceased in 1897-98, but they amounted in 1898-99 to over 300,000 tons, so that in spite of smaller imports of rice from Burma, the total grain traffic was much higher. The exports of cotton resumed their normal level, and the import of piece goods showed a steady improvement; the enormous increase of petroleum imports was not maintained; the exports of seeds increased considerably. The tonnage of steamers engaged in foreign trade using the port in 1898-99 was 1,185,052 tons, against 1,081,970 tons in 1897-98; the total tonnage of all vessels rose from 2,134,173 tons to 2,146,824 tons. Bombay.

The total expenditure was £340,000, of which £146,600 was for interest. The debt of the Trust amounted at the end of the year to £3,476,500, including temporary advances by the banks of £170,000, rendered necessary by the unfavourable state of the market for raising a fresh loan. It has been decided to set aside annually as Sinking Fund an amount sufficient to extinguish the debt in sixty years. The value of the assets and property of the Trust, after being written down, stands at £3,716,500.

The receipts of the Calcutta Port Trust were £415,300, or £3,400 less than in the previous year, and the expenditure was £435,300, inclusive of the Kidderpore Dock Account and of payments to sinking funds. This deficit on the year's working was due to charges caused by the inability to deal with the large quantities of grain, and subsequently of coal, which arrived for export in the early part of the year. All this traffic went through the docks, the resources of which were impaired by illness of the staff and the plague scare among the labourers. An inquiry was held into the block of traffic, and authority was given for the erection of further buildings, and for the issue of a loan of £320,000 on the market. The exports of wheat and seeds from the Calcutta.

PORT TRUSTS.

docks rose from 98,700 to 214,400 tons, of coal from 672,700 to 877,900 tons, and the total exports from 1,140,500 to 1,497,800 tons. The special toll of two annas a ton hitherto levied on coal exports was taken off. The dock revenue rose, in consequence of this large traffic, from £78,500 to £102,000; the expenditure was £100,500, and charges for municipal tax and interest on dock loans were £86,000 in addition. The income from the jetties, which deal only with import trade, was £110,000, and the expenditure was £74,200. The imports of petroleum at the Budge Budge wharf fell from 43¾ millions to 38⅛ millions of gallons. The number and tonnage of vessels entering the port in recent years is shown in the margin. The number of vessels has been surpassed in 1897–98, and equalled in 1864–65, but the tonnage was the largest recorded. Only 105 of the vessels were sailing vessels.

Year.	No.	Tonnage.
1888–89	1,037	2,245,857
1891–92	1,117	2,699,567
1896–97	1,057	3,004,166
1897–98	1,235	3,562,373
1898–99	1,207	3,612,001

The outstanding debt of the port, including the dock loan of £1,918,000, amounted to £2,783,000, against which are to be set £140,000 at credit of sinking funds, reserve funds £211,300, and value of properties £3,842,000, besides the valuable Strand Bank lands held from the Government.

Rangoon.

The revenue of the port of Rangoon was £78,400, showing an increase of 7 per cent. above the high figure of 1897–98, due to the continued growth in the import trade. This growth is considerable, whether the year's imports are compared with those of the previous year or those of ten years ago. The total tonnage entering the port was 1,407,000 tons, against 1,380,000 tons in 1897–98, and consisted almost entirely of steamers, the number of which rose from 1,002 to 1,033; more steamers of tonnage exceeding 3,000 tons entered the port, including 65 of more than 4,000 tons, compared with 52 in the preceding year and only one in 1890–91. The exports of rice were also exceptionally good. The increasing work of the port led to more expenditure under nearly all heads, the total for the year being £84,800, against £52,000 in 1897–98; the larger part of this increase was caused by the provision of further buildings at the port. Certain additional harbour lights are in course of erection, which will allow of night pilotage. No debt was incurred during the year, and the reduced balance, £30,200, is still an ample one.

Madras.

The expenditure of the Madras Harbour Trust was £48,500 and its receipts were £48,000. The contribution from port funds fell from £16,000 to £5,600. Harbour dues increased slightly, owing to larger imports of coal, rice, and petroleum. The total value of the trade passing through the Madras port during the year was about one-half per cent. below that of 1896–97, which had been 4½ per cent. below that of 1895–96. The tonnage of vessels entering the port was 7 per cent. below the figure of the preceding year. No further advances were made to the Trust during the year; the Trust repaid £6,700 on account of previous advances paid, and spent £14,500 on account of interest. No outlay was incurred on harbour extension and improvement during the year.

Karachi.

The income and expenditure of the Karachi Port Trust were respectively £91,300 and £64,500, as compared with £62,000 and £50,000 in the previous year. Exports showed a marked increase, and although imports declined by £333,000 the net result was a rise in the total of private trade of 17 per cent., to £11,654,000. The amount of rice exported was the largest on record, and the exports of wheat rose from 97,000 tons to 479,000 tons. The number of laden steamers which cleared from the port for foreign countries was more than double that of 1897–98, amounting to 274 vessels of 493,700 tons. Good progress was made in the harbour dredging operations.

There are other minor ports at which smaller sums are raised yearly and expended on improvements. The value of the total foreign trade of the five

principal ports during the past five years in merchandise only, excluding Government stores, is set forth below :— PORT TRUSTS.

NAME OF PORT.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£	£	£	£	£
Bombay - - -	42,106,000	43,933,000	40,011,000	34,709,000	40,387,000
Calcutta - - -	54,213,000	48,211,000	49,841,000	47,997,000	48,553,000
Rangoon - - -	6,954,000	8,202,000	7,506,000	8,232,000	9,360,000
Madras - - -	7,324,000	7,156,000	6,841,000	6,774,000	5,747,000
Karachi - - -	7,094,000	6,780,000	5,582,000	6,152,000	8,600,000

ROYAL ASIATIC SOCIETY. LIBRARY OF THE BOMBAY BRANCH OF THE

STATEMENT showing the Number of Municipalities in India, their Receipts and their Expenditure, for the Year 1898-99.

	Bengal.		North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.		Bombay.		Minor Provinces.	Total.
	Presidency Corporation.	District Municipalities.						Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.		
Number of Municipalities	1	151	104	148	42	52	14	1	58	1	165	20	757
Population according to the Census of 1891	631,560	2,722,170	3,235,685	2,124,197	865,822	688,899	84,727	452,518	1,702,402	821,764	2,236,547	283,344	15,899,635
Receipts:	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Octroi	–	–	171,747	285,006	–	56,739	–	–	–	97,290	163,766	18,029	712,577
Other Taxation	291,588	100,703	69,120	16,180	124,160	19,222	7,190	64,198	108,945	322,638	108,088	2,141	1,324,173
Sources other than Taxation (excluding Deposits and Advances).	50,826	43,838	63,629	83,706	147,923	22,564	7,688	22,690	64,644	187,532	156,722	8,008	859,770
Loans	260,000	6,745	10,600	20,778	29,933	4,246	–	13,333	–	53,333	29,553	–	428,521
TOTAL (1898 99) £	612,414	241,286	315,096	325,670	302,016	102,771	14,878	100,221	173,589	660,793	458,129	28,178	3,325,041
TOTAL (1897-98) £	431,423	236,502	295,775	296,548	319,616	99,299	16,538	99,764	181,526	656,370	358,659	28,146	3,020,178
Expenditure:													
Cost of Collection and Administration	38,080	25,102	34,704	45,172	27,903	27,654	1,188	7,732	15,545	36,178	88,900	5,775	353,933
Public Health and Convenience	263,485	159,541	152,900	146,023	197,326	51,903	12,739	80,205	110,764	269,461	238,293	11,942	1,694,582
Public Safety	33,252	12,694	42,626	44,351	29,911	1,229	612	4,800	7,054	56,838	14,940	2,905	251,212
Public Instruction	754	8,458	9,804	41,532	13,321	9,602	492	2,019	23,491	7,652	44,558	1,372	163,058
Interest and Miscellaneous (excluding Investments, Advances, and Deposits, and Payments to Sinking Fund).	130,044	22,016	40,849	27,215	26,848	7,374	433	15,367	10,861	312,425	21,967	5,036	808,988
TOTAL (1898-99) £.	465,615	227,811	280,883	304,293	295,312	97,762	15,464	110,123	167,715	682,554	408,658	27,030	3,083,220
TOTAL (1897-98) £	467,796	240,240	298,574	291,220	280,732	96,547	15,347	110,000	200,722	673,728	402,654	27,664	3,105,224

SANITATION.

SANITATION. European troops.

The health of the European troops in India was much better in 1898 than in the preceding year, though the rates of constantly sick and of death were still high as compared with the average rates of the last 10 years. The following table gives details:—

Year.	Average Strength.	Ratio per Mille of Strength.				
		Admissions into Hospital.	Constantly Sick.	Deaths.	Invaliding.	Total Loss.
1886–1895 (10 years average)	67,788	1,457	83	15·16	24	39
1897 - - - - - -	68,395	1,557	101	22·93	33	56
1898 - - - - - -	67,741	1,437	90	20·05	38	58

The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 25 and 27 per cent. respectively of the total sickness. Enteric fever was the chief cause of mortality, showing a death-rate of 10·17 per 1,000, as compared with 9, the ratio of the previous year. This fever alone caused 51 per cent. of the total deaths. The liability of young and unacclimatised soldiers to enteric fever is again shown in the year's statistics, for among troops between the ages of 20 and 25 the death-rate from this disease was 13·46 per 1,000, while among men between the ages of 25 and 30, and between 30 and 35, the mortality equalled 5·45 and 2·77 per 1,000 respectively.

The total fever mortality was 10·9 per mille in 1898, compared with 10 in 1897, with averages of 4·49 during the years 1881–1890, and of 3·45 during the 10 years 1870–79. There was very little cholera among the European troops during the year.

The loss by invaliding during 1898 amounted to 2,580 men, equal to 38·09 per 1,000 of strength, against 2,258, or 33·01 in 1897. Venereal diseases were the cause of invaliding in about one twelfth of the number of cases, and the next most important cause was malaria. As regards the influence of age and length of residence in India upon invaliding, 24·5 per cent. of the men between 30 and 35 years of age were invalided, whilst the figure for those between 20 and 25 was 48, and for those over 40 was 58·7 per cent.; 49 per cent. of men with three years' service were invalided, 51 per cent. of those with one year, and 26 of those with more than 10 years' service.

Native troops.

The health of the Native troops in 1898 was fairly normal; there was an increase of influenza and respiratory disease, but there was a great reduction in cholera. On an average strength of 126,036, the admissions into hospital were in the ratio of 816 per 1,000, against 839 in 1897; the daily sick-rate was 33, a decrease of 2 per 1,000, and the death-rate was 13·3, against 14·9. Ague continued to rank first among the causes of admission, and yielded 41 per cent. of the total. Pneumonia, as usual, was the chief cause of death, and represented a ratio of 3·77 per 1,000, against 2·73 in 1897. The mortality from intermittent and remittent fevers was 1·66 per 1,000. From these two causes, pneumonia and malarial fever, nearly half the total deaths were recorded. From cholera the death-rate was 0·33 per 1,000, against 0·52 in 1897. The death-rate from enteric fever among the Native troops was only 0·13 per 1,000, as compared with 10·17 among the European troops. The deaths from plague during 1898 numbered 58; the chief outbreaks were among the 8th Bombay Infantry (15 deaths), and the 2nd Madras Lancers (9 deaths).

There was a marked improvement in the health of the jail population in 1898, not only as compared with the famine-striken year 1897, but also with any of the last five years. Only in the Punjab was the death-rate higher than in

SANITATION.

Jails.

the previous year, owing to the prevalence of malarial fever and dysentery. For the jails of British India, as a whole, the ratio of admission into hospital and of daily average sick per mille, were 917 and 37 respectively, against 975 and 39 in 1897. The death-rate was 25·3, compared with 39·6 in the previous year; it ranged from 15 per mille in Berar to 36·6 in Assam and 34·6 (compared with 135 in 1897) in the Central Provinces. In six provinces there was no cholera in the jails, and elsewhere the attacks were much below the average; deaths from malaria were more numerous in Madras, Burma, Assam, and the Punjab, while the number in Bombay, though less than in 1897, was greater than the average; the death-rate from respiratory diseases was lower, as was that from dysentery, except in the Punjab. Of the total number of prisoners discharged during the year, 61 had gained weight and 17·6 had lost weight since their admission.

General population.

The accuracy of the birth and deaths statistics collected with regard to the general population is said to be improving, although the improvement is by no means uniform and much remains to be done. Births and deaths were registered in all provinces during 1898, and the mean provincial birth-rates and death-rates are compared in the marginal table. In all provinces, with the exceptions of the North-Western Provinces, the Central Provinces, and Lower Burma, the birth-rates of 1898 were lower than those recorded in the preceding year. The year in most parts of the country was an extraordinarily healthy one, and in every province, except the Punjab and Lower Burma, the death-rate was lower, generally much lower, than in the preceding year.

—	Mean Birth Rate.	Mean Death Rate.
Bengal	35·79	26·57
Assam	29·46	36·15
North-Western Provinces and Oudh	37·35	27·38
Punjab	41·0	31·05
Central Provinces	29·91	24·30
Berar	31·3	23·4
Madras	27·4	21·0
Coorg	16·15	31·44
Bombay	30·94	29·16
Lower Burma	34·11	26·13

Deaths from cholera were very few in comparison with previous years. In 1897 there were 555,035 deaths recorded as due to this cause, and the death-rate was 2·55 per mille; in 1898 the number fell to 152,703, fewer than in any year since 1880, and less than the number registered in an average year in Bengal alone. From smallpox too the number of deaths registered was 62,517, or about two-fifths only of the mortality in 1897 from that disease. Particulars of the plague mortality are given below in a separate chapter. The fever mortality was considerably below that of 1897, as well as that of the five-year period immediately preceding; the number of deaths from fever fell from 5,026,700 in 1897, to 3,866,650 in the year under report. The death-rates from fevers ranged from 7·48 per mille, in the Madras Presidency, to 22·67 per mille, in the North-Western Provinces and Oudh, and to 27·02 in Coorg. The North-Western Provinces had the highest general urban mortality from fevers in the whole of India, and it was one of the few provinces showing a rural mortality from fever lower than the urban. The mortality from dysentery and diarrhœa was reduced by 47 per cent. as compared with that of 1897, and by 20 per cent. compared with the average of the last five years; the rate was about 1 per mille for the whole of India, compared with 1·87 per mille in 1897.

Vaccination.

The total number of vaccinations performed during 1898–99 was 7,497,600, being a decrease of 300,000 on the previous year's work. Of primary vaccinations, 94 per cent. were successful, and 64 per cent. in the case of re-vaccinations, 30·3 per mille of the population having been successfully vaccinated. The number of infants vaccinated was 2,853,000, and of children between one and six years of age 3,008,000.

Some of the important sanitary works which have been either completed, in progress, or under consideration during 1898, were as follows:—

Bengal.

In Calcutta in the matter of water-supply there is nothing to record during the year 1898–99 but the ordinary progress of the existing system. The average daily consumption of filtered water rose slightly, to 20,684,000 gallons, being at the rate of 34 gallons per head in the town and 20 gallons in the suburban area. The consumption of unfiltered water was 4,779,000 gallons per diem, or 12 per cent. less than in the previous year; the consumption per head was about 11 gallons. Extensive improvements in the sewage and storm-water outfalls

of the town and suburbs, and the provision of a system of sewers in the suburbs were being executed by contractors. The public sewers in use at the end of the year 1898-99 measured over 200 miles. Further progress was made in the improvement of bustees, or clusters of Native huts. SANITATION.

The municipalities of the interior of Bengal spent £130,000 on sanitation, or 46 per cent. of their income, a decrease of £5,500 as compared with the sum expended in the previous year. In addition, a further sum of £32,400 was contributed by private individuals for sanitary works. The most important work was the completion of a portion of the Champanagar and Nathnagar extension of the filtered water-supply of Bhagalpur. Water-supply projects were considered by the Sanitary Board in respect to Howrah (extension), Darjeeling, and other places, and drainage projects for Krishnagar, Monghyr, Comilla, Siwan, and elsewhere. The Board was specially engaged in discussing the Monghyr drainage scheme and the scheme for giving a water-supply to the municipalities on the right bank of the river Hooghly. The towns in which drainage schemes have been carried out numbered 16, exclusive of Calcutta, and nine towns have improved water-supply.

In the North-Western Provinces and Oudh the municipalities expended nearly 40 per cent. of their income on water-supply, drainage and conservancy. Eight towns, Agra, Allahabad, Benares, Cawnpore, Lucknow, Meerut, Mussoorie, and Naini Tal are now furnished with waterworks and pumping machinery, which furnishes daily a quantity varying from 10¾ gallons per head of the population supplied in Naini Tal, to 3½ gallons at Lucknow. Progress was made with the Benares sewerage works, and a small amount was spent on sewerage at Mussoorie; the water-supply works at Allahabad were continued; at Naini Tal a further water-supply scheme costing £17,000 was sanctioned in March 1898, and the greater part of the work had been done by the end of the year. The absence of epidemic disease, the extinction of plague, and the amelioration of the general health, combined with improvement in municipal sanitation, make the record of the year a satisfactory one. Orders were issued prescribing the maintenance of a village sanitation book in towns and villages for recording the needs of local sanitation. North-Western Provinces and Oudh.

In the Punjab the municipal towns spent nearly 25 per cent. of their income on sanitary work in the year 1898. Water-supply or drainage works were either completed, in progress, or under consideration in fifteen of the most important towns. Of the water-supply works in progress the chief were two reservoirs at Simla, a water-supply for Haripur, which was completed, and preliminary work for a water-supply at Amritsar. Important works were under consideration in Bhiwani, Delhi, and Simla. The chief drainage works in progress were those at Delhi, Lahore, Mooltan, and Rawalpindi; projects were in course of preparation for Umballa, Jagraon, Ferozepore, and Fazilka. Some of these schemes are of considerable magnitude, the estimated cost of the Delhi drainage works now in progress being no less than £40,600; but no very large amount was spent during the year on any one project. Private individuals also spent sums aggregating £4,500 on the construction of sanitary works during the year 1897-98. The health statistics of the towns, as might be expected, show, with few exceptions, a marked improvement after the introduction of water-supply, especially after enough time has elapsed to enable the people to get over their prejudice in favour of well water as against pipe water. Punjab.

The appointment of a sanitary engineer for Burma will, it is hoped, stimulate sanitary works in the towns of the province. He has made progress in the elaboration of schemes for the improvement of the water-supply of Moulmein, Mandalay, Bassein, Meiktila, and Kengtung, and he examined a drainage scheme for Prome town. The question of the extension of the Rangoon water-supply was still receiving attention. £147,000, or about one-third of the income of the various funds, was expended on sanitary works, in addition to the cost of the large reclamation schemes in Rangoon. It is considered that the proportion of income spent on sanitation in some towns, noticeably in the larger municipalities, might well be raised. The total spent in the municipalities, other than Rangoon, on conservancy rose from £22,000 to £24,000, the improvement being largely due to the introduction of better methods of disposal of nightsoil in the larger towns of Lower Burma. Burma.

SANITATION.

Central Provinces.

The municipalities in the Central Provinces expended 22 per cent. of their income on conservancy, drainage, and waterworks in the year 1898. The water-supply works in Jubbulpore and Khandwa were advanced, and those in Wardha and Bhandara were completed; progress was also made with the drainage of Jubbulpore. The Harda waterworks scheme was again in abeyance, owing to want of funds. No new villages were brought under the Village Sanitation Act during the year; the Act has been extended to 43 villages in previous years, and it is generally reported to work well. Village inspection note books have been started in all districts, but little was done towards keeping them up. The principle on which sanitary improvements in villages are undertaken is that the greater part of the burden should be borne by the village itself by cash contribution or by free labour; in 1898 both money and labour were scarce.

Assam.

Excluding the towns of Hailakandi, Sunamganj, Karimganj, and Maulvibazar, which have no separate incomes of their own, the municipal authorities in Assam spent 46 per cent. of their income on sanitation. No extensive sanitary work was undertaken during the year, but the waterworks at Gauhati and Shillong, which suffered from the earthquake, were under repair. The sanitary improvements effected in rural tracts were comparatively unimportant, though some progress was made in the direction of providing a purer water-supply by the construction of masonry wells and the excavation of tanks at some of the larger villages. No meeting of the Sanitary Board was held during the year. Sanitary inspection books were kept up in selected villages.

Madras.

In the Madras Presidency the municipal councils spent 54 per cent., and the district boards 6½ per cent., of their income for sanitary purposes, exclusive of plague measures. A large portion of this expenditure was on conservancy, but the expenditure out of income on water-supply altogether amounted to £17,000, in addition to that of Madras city. The water-supply schemes of Coconada, Tirupati, and Vizagapatam were in progress during the year, and those of Coonoor, Bezwada, and Vizianagram were under the consideration of the Government. A decided advance was made in the matter of conservancy, and a large staff was maintained for scavengering. Village sanitary inspection report books were in use in all unions in 19 out of the 22 districts of the Presidency, the exceptions being Malabar, Anantapur, and Tanjore. The Sanitary Engineering Department completed surveys for water-supply or drainage for three municipalities, and one scheme was still under consideration. Three estimates were submitted to the Sanitary Board, the most important being the water-supply scheme for Vizianagram, estimated to cost £19,000, and another for Bezwada, to cost £25,000. In addition to these, many other small projects were in execution or under consideration.

For the sanitation of Madras City several useful improvements were being carried out. The underground sewerage system was completed in Mylapore, this marking the first stage of the scheme for the drainage of the whole city, and the laying of water pipes was continued. The water-supply was rather better than in the previous year, although the Red Hills lake stood at a low level during the middle of the year.

Bombay.

In Bombay City twenty drainage works were in progress, several of which have been practically finished; on the Mazagon sewerage works £18,000 had been spent up to date; £25,000 was spent during the year on the sewerage of Parel and other districts, chiefly in the purchase of machinery. Most of the other schemes were of considerable importance. The municipality spent out of revenue £88,000 on public works, including roads, and £113,000 on public health, while £30,000 was spent out of loan funds on sewerage and £31,000 on minor sanitary works. A short account of the work of the Bombay City Improvement Trust, which has been created for the ventilation of densely inhabited parts, the removal of insanitary dwellings, and the prevention of overcrowding, is given under the heading "Municipalities." In the other municipalities of the Presidency over 49 per cent. of the income was allotted for sanitary purposes, and 18½ per cent. by the local boards, though in neither case was the full allotment spent. The whole expenditure on sanitary purposes was £194,000, of which 32 per cent. was spent on improvement of water-supply, 36 per cent. on conservancy, and the rest on

drainage, improvement of town sites, provision of tanks, &c. The large expenditure on plague precautions checked the prosecution of sanitary works; there was some progress made at Hyderabad, Yeola, Kirkee, and Akalkot, but elsewhere much needed projects had to be suspended; and the same may be said of drainage schemes. The Bombay Village Sanitation Act was introduced in 17 other villages during 1898, making a total of 299 villages which have been brought under it since it was passed in 1889. The Act provides for the establishment of a sanitary committee or a sanitary board, consisting of members chosen by the collector of the district or by the Local Government, to supervise sanitary matters. SANITATION.

The municipalities of Berar spent 50·7 per cent. and the district boards about 11 per cent. of their income on sanitary improvement, the proportion being in either case smaller than in 1897; but the amount in that year was swollen abnormally by expenditure more or less directly connected with famine relief. No new works of any great importance were undertaken during the year. The District Sanitary Boards met once at each of the six head-quarter stations. The sanitary survey of selected towns and large villages made better progress, the stress of famine relief having been removed. The number of towns now surveyed is 37, and of villages 1,009, leaving two towns and 4,234 villages still to be surveyed. The suggestions made for improvements, as a result of the survey, involved the expenditure of £2,700 during the year by district boards, and it is hoped that the information recorded will be put to practical use in future. Berar.

HOSPITALS, DISPENSARIES, AND LEPER ASYLUMS.

(Detailed information regarding the above is annually furnished in the Report on Sanitary Measures in India, which is published as a Parliamentary Paper, and a brief review only is given in this place.)

There are in India, besides the large hospitals in presidency and other important towns, a number of dispensaries which are maintained for the most part at the expense of municipal or local bodies. These are the chief agencies for the medical attendance of the rural population, but there is a large number of missionary dispensaries in many provinces, for which no statistics are available, and an attempt is being made in a district of Bengal to deal with the question by issuing simple medicine chests to headmen of villages remote from dispensaries. The latter, however, is as yet only in the position of an experiment. The following table compares the position of the various provinces, outside the presidency towns, in respect of hospital and dispensary attendance. The number of dispensaries is that for which returns were available for the year; and no account has been taken, for the reason given above, of mission dispensaries:—

Province.	Number of Dispensaries.	Square Miles per Dispensary.	Population per Dispensary.	Number of Patients per Dispensary.
Bengal - - - -	487	311	145,103	5,913
Bombay - - - -	337	371	56,086	5,074
Madras - - - -	496	280	71,835	8,161
Central Provinces - -	121	591	78,524	12,499
Punjab - - - -	265	417	78,720	12,232
North-Western Provinces -	331	324	141,707	10,983
Burma - - -	99	1,731	76,820	7,620

SANITATION.

The hospitals in the larger towns are in many cases on an important scale, as, for instance, the Campbell hospital at Calcutta, with its daily average of 452 in-patients in 1898, the Sir J. Jijibhoy hospital in Bombay City, with 308 beds, the Government General hospital at Madras, with 500 beds, the Mayo hospital at Lahore, with 149 beds, the Rangoon General hospital with about 460 beds, and others. The expenses are met to a large extent by the State, especially in the presidency towns, and State subventions are frequently given to dispensaries supported by local funds or private subscriptions. In Calcutta, the Government paid £52,000 out of a total expenditure of £66,000; in Bombay City, £21,500 out of £29,300; in Madras City, £19,600 out of £27,400. Elsewhere, however, the chief contributions are from local funds; of the £68,200 spent on the Madras dispensaries in the interior, £57,400 came from local funds; in Burma, out of £32,500, 69 per cent. came from local funds, and so on. Private subscriptions do not form a large proportion of the receipts; in Calcutta they amounted to £7,700 in the year 1898; in the rest of Bengal to £15,600; and in the North-Western Provinces and Oudh to £7,500; elsewhere the amounts were smaller.

The year was, apart from plague, generally a healthy one, and the number of indoor patients especially was less than in the previous year; but the decrease is not viewed with satisfaction because the aim is to widen the field of operations and to afford to all classes an opportunity of obtaining medical relief. There is an enormous mass of disease and sickness in India, which is as yet untouched by any hospitals or dispensaries; and the fact that their operations, so far as indoor patients are concerned, were not increased generally in the year is attributed in most provinces to the fear of plague restrictions. The number of outdoor patients also decreased generally, but in a smaller proportion.

The leper hospital at Madras was increased by the addition of a new ward during the year 1898, so that it contained 246 beds; but even this was insufficient to meet the applications for admission. At the six leper asylums in the Punjab 566 lepers were treated. A leper asylum was opened at Sylhet during the year. In the North-Western Provinces and Oudh there are asylums in which 926 lepers were inmates during the year.

LUNATIC ASYLUMS.

Bengal.

In the province of Bengal there are five lunatic asylums for natives, situated at Dullunda, Dacca, Patna, Cuttack, and Berhampore. The number of lunatics in these institutions on the 31st December 1898 was 911, of whom 729 were males and 182 females. The daily average strength of the several asylums during the year 1898 was as follows:—Dullunda, 218·34; Dacca, 226·54; Patna, 235·5; Cuttack, 38·84; Berhampore, 202·83. The total number of criminal lunatics in the five asylums on the 31st December was 477, of whom 418 were males and 182 females. The total number of lunatics in the asylums was slightly less than in 1897, but 159 patients were admitted during the year. At the same time 71 were discharged cured, and 73 died. Amongst the 159 fresh cases the cause of insanity was traced in only 61, the ganja habit being responsible for 21 of these. There was a marked improvement in the health of patients. Of the 477 criminal lunatics, 184 had been tried for crime and acquitted on the ground of insanity, 260 were found incapable of making a defence, and 33 became insane during imprisonment.

The expenditure on asylums during the year 1898 amounted to £6,552.

There is an asylum for European lunatics at Bhawanipur, the strength of which was 53 (including 13 admissions and 5 re-admissions during the year). There were 4 recoveries, 2 deaths, and 12 transfers of patients, so that on the 31st December 35 patients remained under treatment. The expenditure on this asylum was £1,392.

In the united provinces there are four lunatic asylums, situated at Bareilly, Benares, Agra, and Lucknow. The number of lunatics in confinement on the 31st December 1898 was 1,030 (as against 1,084 on the 31st December 1897), the average daily strength of the several asylums during the year being as follows:—Bareilly, 297; Benares, 303; Agra, 238; Lucknow, 227. Of the total number of patients 20 were Europeans or Eurasians. It is intended to keep this class of lunatics at Agra alone, as soon as the contemplated enlargement of that asylum has been carried into effect. Eleven lunatics escaped during the year, of whom five were recaptured. The number of deaths was 87. The number of criminal lunatics in the four asylums at the end of the year was 178. It is intended to transfer harmless criminal lunatics to the asylums, as far as the accommodation permits; hitherto only dangerous criminal lunatics have been housed in asylums. SANITATION. North-Western Provinces and Oudh.

The cause of lunacy was known in less than 50 per cent. of the cases; among these 24·27 per cent. were attributed to the use of intoxicants. The expenditure on buildings in 1898 was £500, and on other charges £5,966.

There are two lunatic asylums in the Punjab, one at Lahore and one at Delhi. On the 31st December 1898 there were 291 patients in the former (230 males and 61 females), and 133 (99 males and 34 females) in the latter. The average daily strength was, at Lahore, 286·19, and at Delhi, 130·61. All these figures are the highest on record, but it is thought that the increase is due not to any spread of insanity in the Province, but to greater willingness on the part of the people to place patients under restraint, and on the part of magistrates to grant admission orders. At Lahore 369, and at Delhi 19 patients were discharged cured, while the deaths in the two asylums numbered 26 and 14 respectively. As regards criminal lunatics, the daily average strength was, at Lahore, 73·51 (against 68·37 in 1897), and at Delhi, 11·9 (as against 13·7). Punjab

The total expenditure was:—Lahore asylum, £2,206; Delhi asylum, £884.

In the Bombay Presidency (including Sind) there are lunatic asylums at Colaba, Ratnagiri, Poona, Dharwar, Ahmedabad, and Hyderabad. The respective average daily strength of these six asylums during 1898 was, 311·3, 94·8, 105·7, 60, 107·1, and 108. The total number of lunatics in confinement on the 31st December 1898 was 811, of whom 644 were males and 167 females. Of these, 119 (110 males and 9 females) were criminal lunatics. Europeans and Eurasian patients were treated at Colaba alone, and during the year there were 76 Europeans and 27 Eurasians in this institution. Of the cases in which the cause of insanity is known, the greater number is attributed to the use of intoxicants, particularly charas, ganja, and bhang. The total number of deaths in the six asylums in 1898 was 55 (as against 81 in 1897); the number of patients discharged cured was 80. The total expenditure amounted to £10,154. Bombay.

In the Madras Presidency there are asylums at Madras, Vizagapatam, and Calicut. At the end of the year 577 patients (442 males and 135 females) remained under treatment. The daily average strength was:—Madras, 425·53; Vizagapatam, 72·51; Calicut, 82·28. During the year there were 46 deaths, and 63 patients were discharged cured. The number of criminal lunatics at the end of the year was 135 (121 males and 14 females). Of the total number of 134 new admissions in 1898, 22 were Europeans or Eurasians. Madras.

The total expenditure was £5,396.

There are two lunatic asylums in the Central provinces, one at Nagpur, and the other at Jubbulpore. On the 31st December 1898 the total number of lunatics was 326. The daily average strength was 162·45 at Nagpur and 152·89 at Jubbulpore. During the year 24 lunatics died and 31 were discharged as cured or improved. The number of criminal lunatics at the end of the year was 94. Central Provinces.

The total expenditure was £2,296.

There is one lunatic asylum in the province of Assam, situated at Tezpur. During the year 28 patients were admitted, and there were five deaths. The number of inmates at the end of the year was 125 (99 males and 26 females) as against 118 at the end of 1897. During the year 14 lunatics had been Assam.

SANITATION.

discharged cured. The number of criminal lunatics was 36 (33 male and 3 female). The total expenditure for the year amounted to £884 (as against £890 in 1897).

Burma.

The only lunatic asylum in Burma is at Rangoon. During 1898 the total number of inmates rose from 342 to 345 (303 males and 42 females), of whom 173 (161 males and 12 females) were criminals. The number of admissions during the year was 88. Sixteen inmates were discharged cured, and 41 died. Three escaped and were not recaptured. At the end of the year three male Eurasians and one female Armenian remained in the asylum. The total expenditure for the year amounted to £2,768 (as against £2,824 in 1897).

CHAPTER II. A.

PLAGUE.

The plague epidemic began at Bombay in September 1896; and last year's Statement brought the plague narrative down to March 1899. Reported deaths from plague in the Bombay presidency had then reached a total of 191,000, while in other parts of India 19,000 deaths from plague had been reported; and it was surmised that the total deaths from plague in British India and Native States from the beginning until March 1899 might have reached 300,000 in all. PLAGUE.

Bombay city was again visited with plague in epidemic form. As in previous years the disease was worst in the months of February and March, and began to abate in the beginning of April. During the three months, February–April, the reported plague deaths of Bombay city were 7,897 in 1897; they were 11,647 in 1898; they were 10,314 in 1899, and 8,096 in 1900. Up to the end of April 1900, the reported plague deaths in Bombay city since the beginning of the epidemic had been 55,460 or 6¾ per cent on the population of the city. The deaths from plague were fewer in 1898 than in 1897, and so far they are fewer in 1900 than 1899. The proportion of deaths to cases in the whole Bombay presidency was 88 per cent. in the epidemic of 1897, it was 94 per cent. in that of 1898, it was 83 per cent. in that of 1899, and it has so far been 79 per cent. in the epidemic of 1900. All classes appear to have suffered, except perhaps Europeans, of whom only 57 have died of plague in Bombay since the beginning of the outbreak. The castes and classes that suffered most were different in the several outbreaks. For instance, in the first outbreak the fishermen suffered severely, while in the second they came off better; in the first epidemic Parsees and Moslems were fairly exempt, but in the second these races suffered heavily.

Segregation of the sick and of persons who had been in contact with the plague-stricken was less rigorously enforced during the past twelve months; hospital treatment has throughout been carefully and efficiently managed; but of late the number of separate hospitals has been larger. During the past year the authorities have trusted more fully to the townspeople for information regarding plague cases; and domiciliary visitation by the police or special sanitary agents in search of plague cases has been less universal. The people of Bombay city no longer resist, but rather acquiesce in the operations for the prevention and cure of plague.

In 1899 the town of Karachi was again visited by plague in epidemic form for two months in the spring; but the number of reported plague deaths did not at any time exceed 281 a week as compared with 480, the maximum weekly total of 1898. In the year 1900, however, the plague deaths in Karachi were as high as 390 in the second week of April.

In the autumn of 1899 the districts of Belgaum and Dharwar were again visited by plague in epidemic form, but the disease was much less severe than in the previous year; the highest weekly return of plague deaths was for Dharwar district, 528 in October 1899 as compared with 2,358 in one week of November 1898; in Belgaum district the highest weekly total was 661 compared with 1293 in 1898; both these maxima occurred in October. The State of Kolhapur had a severe and prolonged attack of plague during the autumn of 1899, and the total plague deaths of 1899 were 14,479 in Kolhapur as compared with 9,119 in 1898. The city of Poona too had a short and severe attack of plague in its most virulent form during the autumn of 1899; more than 6,000 deaths occured in six weeks out of a total population of less than 100,000, after the city had been practically free from plague during the 12 months ending May 1899.

For the whole of the Bombay presidency the reported plague deaths were 57,943 up to December 1897, they were 104,881 in the year 1898, and they were 117,176 during 1899. For the first four months of 1900 the reported plague deaths of the whole presidency have been 19,841 as compared with 34,567 in the same period of 1899.

Outside the Bombay presidency the plague has spread more widely than in 1898 or previous years. In Bangalore city and cantonments plague deaths have fallen to 1,963 as compared with 5,643 in 1898. But in the Mysore, State as a whole reported plague deaths were 6,629 in 1899 against 6,342 in 1898.

In other provinces reported plague deaths for the two years and for a part of the year 1900, have been:—

	1898.	1899	1900 (four months only).
Bengal	166	3,288	26,222
Madras	490	1,817	501
Panjab	1,871	253	42
N.W Provinces	116	6	116
Central Provinces	103	522	570
Central India States	1	6	Nil
Rajputana States	118	23	10
Hyderabad States	3,945	4,359	671

The severe epidemic of plague in Calcutta and in parts of the Behar districts of Bengal is the most serious feature of the plague history of the present year. Plague had been appearing at longer or shorter intervals in Calcutta since 1897; and for months at a time the city was reported to be free; but the disease suddenly assumed epidemic form in March 1900, during which month 3,300 persons are reported to have died of plague in the city. The figures fell to 1,903 for the four weeks ending on 28th April, and during the first three weeks in May the number of reported plague deaths was 537. In Behar the most formidable outbreak occurred in the Patna district in January, and the weekly number of plague deaths reported rose rapidly to a maximum of 2,044 in the week ending 17th March, since which date it has declined to 92 in the week ending 19th May.

Up to the end of April 1900 the total reported deaths from plague have been 299,844 in the Bombay presidency, and 58,841 for other parts of India, or 358,685 for the whole of British India and Native States. Possibly the real total may be nearly 475,000; this total for a period of nearly four years is less than the difference between the highest cholera mortality (727,493 in 1892) and the lowest (152,703 in 1898) for British India in a single year. After the recent outbreaks in Calcutta and Behar, the prospect that severe plague epidemic will be confined to Western India is less hopeful than at the end of 1899.

The Plague Commission, after visiting all plague centres in India and taking evidence, returned to England in the summer of 1899. They took some further evidence in this country; and it is expected that their complete report will soon be issued. Two sections of their Report regarding "Haffkine's Anti-plague Inoculation" and regarding "Measures for the Suppression of Plague," have been issued for the use of the Government of India and the authorities dealing with plague. The Commission hold that Haffkine's "inoculation sensibly diminishes the incidence of plague attacks on the inoculated population," though the protection is not absolute; and that "inoculation greatly diminishes the death-rate among the inoculated population," not only by reducing the rate of attack but also because "the fatality of attacks is diminished." The Commission, while they do not recommend compulsory inoculation, advise that the people of places threatened or attacked by plague should be persuaded to submit themselves to inoculation, and that improved facilities for undergoing inoculation in the best and most perfect way should be provided. Regarding measures for suppressing plague, the Commission say that the enforced removal of plague patients to hospital is a doubtful and unpopular measure; that segregation of persons who have been in contact with plague patients is only possible subject to large limitation; that evacuation of infected places is feasible only in villages and small towns; that perchloride of mercury has been found to be the best plague disinfectant; that there is little or no risk of plague being carried by goods and it is unnecessary to disinfect merchandise; that land cordons and the practice of searching railway passengers are of small use. The Commission state the measures of suppression recommended for villages and small towns, also those advisable in the case of large towns and cities. They apprehend that the extinction of plague may be found a more difficult business than it used to be in byegone centuries.

CHAPTER III.

JUSTICE AND POLICE.

CRIME AND POLICE.

Crime and Police Bengal.

The sanctioned strength of the police force in the town of Calcutta and its suburbs was 3,004. That of the District Executive Police throughout the province of Bengal was 26,637. In addition to these there was a force of 675 railway police and another of 300 military police. The latter force, which now consists of four companies, did good service at the time of the plague riots in Calcutta. The men enlist under a three years' engagement, the Subadars in charge are all experienced officers, and the men are regularly instructed in physical drill, bayonet exercise, musketry and battalion drill, &c., and are encouraged in athletic sports. The total strength of the town police (apart from the Calcutta force) was 5,506, while the rural police (consisting of village chaukidars) included 166,222 men at the beginning of 1898, the number being reduced during the year to 161,967. The new station-beat system has added to the efficiency of chaukidars in those districts in which it has been introduced.

The expenditure on the regular police (exclusive of town and rural chaukidars, but including the military police) was £339,516 in the year under review, as against £353,970 in 1897–98. The outbreak of plague necessitated the employment of a large temporary force of police.

The percentage of casualties due to deaths, retirements, and discharges (8·3 per cent.) was practically the same as in 1897. There were 13 charges against policemen of using torture, and 85 of extortion, but only two torture charges and 13 extortion charges resulted in conviction. A large number of the charges were malicious. It is to be noted, however, that the number of punishments awarded to members of the force has risen; during 1898 there were 418 judicial convictions (against 334 in 1897) and 3,856 (against 3,278) departmental punishments. At the same time the general discipline has been good, and the number of men wearing good conduct stripes is now 10,792.

The total number of cognisable offences* in the town of Calcutta fell from 26,592 in 1897 to 25,796, and in the suburbs there was a decrease from 7,301 to 6,419. The Calcutta police sent up 29,390 cases, and obtained convictions in 96·77 per cent. of these cases. An abnormal rise in the number of non-cognisable offences in Calcutta in 1898 was due mainly to neglect of duty on the part of the subordinate officials of the Municipality, which led to applications for more than 20,000 summonses under the Municipal Act for failure to take out trade licenses in due time. In the province the total number of reported cognisable crimes fell from 185,061 in 1897 to 171,993 in 1898. The number of cognisable cases investigated by the police fell from 106,561 in 1897 to 99,628 in 1898. The percentage of reported cases investigated shows an increase, but there were proportionately less convictions. The need of a good detective department is receiving the attention of Government.

North-Western Provinces and Oudh.

There was in 1898 a decrease of 33 per cent. in the total volume of crime reported in the North-Western Provinces and Oudh. The number of cognisable cases investigated by the police was 167,708. In 46 per cent. of the total number of cognisable crimes reported the police refused investigation. The corresponding percentages in Bengal and the Punjab are 22 and 30 respectively. It thus appears that the police in the North-Western Provinces show more discretion in selecting cases for investigation, but it is at least possible that a larger amount of petty crime goes unpunished in these provinces. The percentage of convictions to cases tried is, as might be expected under these conditions, greater than in the neighbouring provinces. There was a marked decrease in the amount of non-cognisable crime. Dacoity has decreased, and no dacoit leaders of much notoriety are now at large. The police of neighbouring native states, particularly those of Gwalior and Rampur, have given valuable aid in this respect.

* Cognisable offences are those for which the police can arrest without warrant.

CRIME AND POLICE. The total strength of the provincial police in 1898 was 24,790, and the cost increased from £364,214 in 1897 to £371,240. The town police, 3,215 in number, cost £13,624. Municipal police numbered 6,685, and cost £33,862. The force of railway police was raised from 783 to 818, and cost £17,612. The number of village chaukidars was this year 89,957, and their cost £183,142. The Government is pursuing the policy of substituting a cash wage in the case of these chaukidars for the old system under which their remuneration very largely consisted in the grant of pieces of land rent-free. Only two instances of torture were alleged against the police during the year, and each of these cases resulted in acquittal. The total number of punishments inflicted on members of the district police fell from 1,363 to 1,048. It is recognised that the police service does not attract the best class of recruits, but within the last five years the aggregate pay of the force has been increased by 6½ lakhs annually, and it is hoped that the improvement in pay and prospects will not only secure better men for the ranks, but will lessen the force of the great temptations to corruption which undoubtedly meet the constables at present.

Punjab. Although there was in the Punjab during 1898 an improvement as regards crime against property, offences against the State and crimes of violence continued to increase. There has been on the whole an improvement in the cis-Indus divisions, but Bannu and Peshawar show a larger list of murders. The Waziris are the worst offenders, but it is very probable that the rise in reported crime amongst them is due to the fact that the occupation of the Tochi valley has brought under British rule a region to which British subjects have long resorted for the purpose of settling their differences. These affairs, which formerly did not come under the notice of the authorities, now figure in the annual list of murders. It is almost impossible to make the border a difficult line to cross, and a good many crimes of violence are committed in British territory by trans-border Pathans. Steps are being taken to limit the number of pistols and daggers. The police are perhaps to some extent rendered less keen in the collection of evidence by the facility of handing over cases to be tried by the rough justice of tribal jirgas. In some of the eastern divisions of the Punjab, a decrease in violent crime is attributed to a sudden reconciliation between Hindus and Mohammedans, brought about by their common dislike of plague rules. During the year 1898, thirty-eight Lee-Metford rifles and twenty-five Martini-Henry carbines were stolen, and only nine of these sixty-three weapons were recovered.

The strength of the police force was 19,958, and its cost £235,346. During the year, 7 non-commissioned officers and 134 men were punished judicially, while departmental punishments fell from 2,133 to 1,996 and dismissals from 226 to 214. The number of voluntary resignations without pension or gratuity rose, the fact being evidence that the service is not popular. Out of 2,120 recruits enlisted during the year, only 67 were Sikhs, and the number of Hindus (including Sikhs) formed only 30 per cent. of the total. The working of the police during the year was handicapped by the detachment of a large number of men to cordon the plague-infected villages of the Jullundur Doab. But it is admitted that the efficiency of the police is not increasing *pari passu* with the intelligence and resources of the criminal. It is to be noted that an educational improvement in the force is accompanied by a decline in social status and prestige.

Burma. The sanctioned strength of the District Executive Police in Burma at the close of the year 1898 was 13,053. The Railway Police number 332. The Mandalay Cantonment and Municipal Police were during the year amalgamated with the Regular Police. Desertions and dismissals were fewer than in 1897, but the number of departmental punishments inflicted on the rank and file increased.

The number of cognisable cases disposed of was 48,085 as against 49,762 in 1897. Dacoity and violent crime generally have decreased. The number of cattle thefts has decreased by 305 to 3,305. A great amount of opium smuggling is reported. Of the total number of cognisable cases 88 per cent. were investigated by the police. The percentage of cases ending in conviction to cases reported was 67. The system of beat-patrols, introduced in 1896, has already produced good results as regards the surveillance of criminals.

The sanctioned strength of the Military Police was 14,941 (as against 15,167 in 1897). Except in the unhealthy Ruby Mines District, where difficulty was experienced in enlisting Karens, recruiting was good, and Kachin recruits were obtained without difficulty, and did well. The ranks include many Sikhs, Punjabis, and Gurkhas. CRIME AND POLICE.

It had been hoped that the year 1898 would show a reversion to normal conditions of crime in the Central Provinces, and in effect the total number of offences reported was smaller than at any time during the past ten years. Murders generally have decreased by 50 per cent., but the cases of poison and drugging are as numerous as in 1897. There is a great reduction in cattle-maiming and cattle-theft, the police having watched certain "butchers" who were little better than professional cattle thieves. The total number of offences reported dropped from 50,021 in 1897 to 20,756 in 1898. As regards cognisable crime, the police investigated 75·10 per cent. of the reported cases, and 72·78 per cent. of arrested persons were convicted. Central Provinces.

The Police Force (including the Railway Police) had a strength of 1,401 officers and 6,976 men. No case of torture was reported during the year, but there were 14 cases of alleged extortion. Departmental punishments fell from 762 to 657. Difficulty is experienced in recruiting.

The actual strength of the total police force in Assam in 1898 was: Military Police, 3,064; Civil Police, 2,372; Union Police, 15; Rural Police, 6,757. An increase of 231 in the Military Police is due to the taking over of the South Lushai Hills Battalion from Bengal. The percentage of Civil Policemen departmentally punished was 11·2 per cent. in 1898, as against 15·4 per cent. in 1897. There was a remarkable increase in cognisable crime, which cannot be wholly ascribed to the influx of foreigners in connection with the Assam-Bengal Railway, 8,411 persons being convicted during the year. The total number of cognisable offences for disposal was 16,982 against 15,322 in the preceding year. Assam.

The sanctioned strength of the police in the Hyderabad Assigned Districts was 2,897. There were 17 judicial and 1,349 departmental punishments in the force. There was a notable diminution of cognisable crime, the number of cases falling from 10,296 in 1897 to 4,883 in 1898. Dacoities decreased by 50 per cent. The figures of 1897 had, of course, been exceptional, the presence of famine having made it hard for the poorer classes to live honestly, but it is satisfactory that the recovery from the famine conditions should have been accompanied by a striking diminution of crime. Of the 11,449 persons arrested by the police, 74 per cent. were finally convicted. Berar.

Excluding village police, the total strength of the Police force in the Madras Presidency at the end of 1898 was 22,564, being ·8 per cent. under sanctioned strength. Expenditure decreased from £291,606 to £286,670. There were 1,995 enlistments during the year, and 1,797 men left the force. The number of policemen judicially punished was 290, while the dismissals amounted to 1·6 per cent., and the minor departmental punishments to 27·4 per cent. of the force. The percentage of men able to read and write rose from 86·4 to 86·6. Madras.

The number of cognisable cases rose from 164,007 to 172,634. Of these, 66·1 per cent. resulted in conviction of offenders. The volume of crime under the Indian Penal Code decreased slightly, while a substantial increase took place among cases under special local laws, and cases of nuisance. There was an increase among grave offences against property, and the police were rather less successful in their dealings with this class of crime.

The total number of reported cognisable offences in the Bombay Presidency (including Sind) was 40,805, as against 45,479 in 1897. At the same time there was a rise of 22,000 in the number of non-cognisable cases (193,327). The general fall in cognisable crime is ascribed to the improved condition of the year, and did not extend to Sind, where the year was a bad one for agriculture. While plague inevitably to some extent disorganises police work, it is thought that in some districts the restrictions placed on the movements of criminal classes by plague regulations tend to reduce the volume of crime. Of 357,789 persons appearing before the courts, only 20·9 per cent. were convicted, but these figures throw little light on the work of the police, since only about one-seventh of the cases were really police cases. The police investigated Bombay.

CRIME AND POLICE. 34,408 cognisable cases during the year, and amongst the 16,423 actually tried convictions were obtained in 75 per cent. There was a great decrease in dacoity.

The total sanctioned strength of the police was 19,772, the cost being £225,405, as against a strength of 19,650 and a cost of £265,244 in 1897. About 59 per cent. of the force were engaged in the prevention and detection of crime. The number of judicial punishments inflicted on members of the force were in the Presidency proper 143, and in Sind 48; the number of dismissals 168 and 64, and of minor departmental punishments 2,107 and 774 respectively. The strength of the police in the town and island of Bombay was 2,118.

Coorg. The total number of cognisable cases in Coorg was 840, as against 765 in 1897. The strength of the police force was 226. It is becoming easier to recruit Coorgs for the police, and the results are expected to be satisfactory. During the year 19 constables were dismissed and 85 underwent minor departmental punishments.

CRIMINAL JUSTICE.

CRIMINAL JUSTICE.

Bengal. The number of offences reported during the year 1898 in Bengal (350,610) was less by nearly 5,000 than the number for 1897. There was a large decrease in the number of offences against property, but offences affecting the human body were more numerous. Of the total number of offences reported, 294,928 were found to be true. Crime decreased in 28 districts, but increased in 17 (including Calcutta). There were 4,715 (as against 4,409) reported cases of offences against the public tranquillity, and 74,568 offences affecting the human body (an increase as compared with the 73,069 reported in 1897, but considerably below the number for 1896, which amounted to 78,230). The number of murder cases found true was 386, and in connection with these 177 persons were convicted. The number of reported offences against property fell from 122,703 to 99,606, the figures being the lowest recorded since 1891.

At the close of the year there were 437 stipendiary magistrates of varying powers, including the district magistrates, and 1,818 honorary magistrates, excluding in both cases Calcutta. The latter tried 25·6 per cent. of the total number of persons tried by all the magistrates' courts in the Province (excluding Calcutta). The average duration of each case in the courts of the several classes of magistrates rose from nine days to 9·6.

The number of cases committed to the courts of session, or referred to the sessions judges, fell from 1,875 to 1,768, and the number tried from 1,835 to 1,806, leaving undisposed of at the close of the year 265, against 324 in 1897. The average duration of trials rose from 50·2 days to 55·8 days, while the percentage of persons convicted to the number tried rose from 60·3 to 67·5.

The number of persons tried by jury was 1,161. The sessions judge agreed with the verdict of the jury in respect of 1,048 persons, and differed from it in respect of 113. The number of persons tried with the aid of assessors was 1,892.

The number of cases brought to trial before Presidency magistrates was 42,840, of which 42,579 were decided. In magistrates' courts outside the Presidency town, 158,707 cases were brought to trial, and (including arrears) 158,871 disposed of.

The number of appeals before the High Court from the various criminal courts of the province, including those pending, fell from 985 in 1897 to 935, and the number decided from 1,009 to 927. The judgment of the lower courts was affirmed in 720 cases, reversed in 32, and modified in 91. Appeals to sessions judges fell from 8,706 to 7,132, while those to district magistrates fell from 5,636 to 5,418. The percentage of decisions confirmed to decisions appealed against rose, in the case of appeals to sessions judges, from 50·86 to 51·09, and of those to magistrates, from 60·42 to 61·84.

The number of persons sentenced to imprisonment by courts of session, Presidency magistrates, and magistrates outside Calcutta was respectively 1,677, 1,465, and 24,727. CRIMINAL JUSTICE.

Although the North-Western Provinces and Oudh have, for legislative purposes, been united, Oudh, not being subject to the High Court of the North-Western Provinces, but having a Judicial Commissioner as its highest court of appeal, presents its judicial statistics separately. North-Western Provinces.

In the North-Western Provinces 124,072 offences were reported, of which 97,326 were returned as true, and 88,906 were brought to trial. The proportion of persons convicted to those brought to trial fell from 61 per cent. in 1897 to 56·4 per cent. in 1898, theft and hurt being the offences with which 40,550, 29 per cent. of the 140,038 who were brought to trial, were charged, this proportion being 4 per cent. less than in 1897.

Of 87,626 cases disposed of in the several classes of magistrates' courts, 20,578 cases were tried by honorary magistrates, who continue to render efficient assistance to the administration. The average duration of cases in all the magistrates' courts rose from 6·2 to 7·4 days.

Sessions judges disposed of 2,054 out of 2,283 cases for trial, the corresponding figures for 1897 being 2,921 and 3,184, and they reduced the list of 235 cases pending at the close of that year to 204 at the close of 1898.

Sentences to death fell from 152 to 91, and to transportation from 573 to 281. There was also a marked decrease in the number of lighter punishments. Whipping (the punishment of male juveniles and adult offenders charged with theft and a few other offences) was inflicted in 6,459 instances, or 30·66 per cent. of possible cases, as against 17,187 instances, or 38·46 per cent. of possible cases, in 1897.

Courts of magistrates disposed of 3,541 appeals, against 3,505 preferred during the year, the average duration of cases being 14 days, and the percentage of unsuccessful appellants being 75·3. Courts of session disposed of 8,195 appeals against 8,345 preferred, giving an average of 17 days to cases, and finding against 75 per cent. of appellants. The corresponding figures in the case of the High Court were 1,255 fresh appeal cases for hearing, 1,269 disposed of, 32 days' average duration, and 85 per cent. of appellants wholly unsuccessful.

Out of 42,557 reported offences in Oudh (as against 50,765 in 1897), 31,879 (as against 40,574) were brought to trial. The percentage of persons convicted to persons brought to trial fell from 59 to 54. Although there was a slight increase in the number of offences affecting the human body, the recovery of the province from famine conditions was marked by an enormous decrease in the number of offences against property. Oudh.

The number of cases pending at the close of the year was slightly smaller than in 1897. The percentage of convictions in magistrates' courts fell from 59 to 53. Honorary magistrates disposed of 22 per cent. of the total number of cases. Sessions judges disposed of 623 cases, against 708 in 1897 and reduced the number of cases pending from 67 to 61.

Appeals to the Court of Session decreased from 4,328 to 2,402, and the proportion in which the sentence of the Lower Court was modified or reversed rose from 17·6 to 19·7 per cent.

In the Judicial Commissioner's Court, which during the year consisted of three Judges, the work was much the same as in 1896, although the number of cases (1,358) was 296 less than in 1897; appeals, however, fell from 955 to 684, sentence being upheld in 72 per cent. of the cases as compared with 83 per cent. in 1897.

In the Punjab the total number of reported and admitted offences fell from 187,084 and 125,880 respectively in 1897 to 174,221 and 119,222 in 1898. Punjab.

The fall in the number of offences does not justify the conclusion that crime is really waning. The year 1898 was marked by easy prices and good harvests, and thus offences against property fell, but the steady rise in crimes of violence shown in the last few years was maintained in 1898. The percentage of cases brought to trial on cases returned as true has risen from 79 in 1897 to 82, but the percentage of convictions on trials has fallen to 42. The natural inference is that either a large number of guilty persons escape punishment, or a large number of innocent persons suffer from vexatious prosecutions.

CRIMINAL JUSTICE. It is possible that lower-grade magistrates allow themselves to be unduly influenced by the prospect of appeals. An erroneous conviction is very rightly held to discredit a magistrate, but an erroneous acquittal often escapes notice, and the statistics seem to prove that such magistrates as tahsildars are too much inclined to acquit prisoners who might be expected to appeal.

The number of murders admitted to have occurred in the Province fell by 16 to 639, but in the Peshawar district, which was still by far the worst in this respect, there were this year 145 against 133 in 1897. There was a large increase in Bannu, balanced by a fall in Hazara and Kohat. The Provincial total in 1898 is 5·9 per cent. above the average for the last five years. Seven hundred and fifty-six persons were tried for murder by Sessions Courts, and 476 by Councils of Elders, the percentages of conviction being 34 and 35 respectively. There was a marked increase (from 372 to 498) in the number of cases under the Forest Act.

As regards punishments, the Chief Court confirmed only 78 death-sentences out of 148 referred by the Sessions Courts. Sentences of imprisonment, both rigorous and simple, have decreased, and there is a fall of over 33 per cent. in the number of sentences of whipping. It is clear that Native Magistrates generally prefer to punish by imprisonment offences for which whipping might more suitably be awarded.

The number of persons who appealed was 20,102 out of 71,574 convicted, the percentage (28) being the same as in 1897, when 21,883 persons appealed. The number of criminal appeals instituted in the chief court was 780, of which 671 were unsuccessful.

Burma. The number of cases returned as true in Burma fell from 66,572 in 1897 to 65,539, the total number of offences reported being 70,571. There was a serious increase in the total of hurt cases, but an improvement as regards violent crime and theft. The number of petty offences was diminished largely in Rangoon, but augmented in Mandalay.

The number of cases brought before the tribunals fell from 68,623 to 68,252. Of 110,896 persons under trial, 68,309, or 61·2 per cent., were convicted. Much assistance was rendered by honorary magistrates in Lower Burma, especially at Rangoon, Mandalay, and Moulmein. In Upper Burma there was a large increase of cases in the Honorary Magistrates' Courts.

The percentage of convictions in Upper Burma rose from 64·98 to 67·40, but fell in Lower Burma from 61·41 to 60·92. Of the 68,309 persons who were convicted, 49,881 were sentenced to fines amounting in the aggregate to £40,544, of which £34,206 were realised; 12,461 to rigorous imprisonment, and 3,402 to whipping.

The Recorder of Rangoon, sitting as a Court of Session, tried 26 persons, of whom 16 were convicted. In other Sessions Courts of Lower Burma 662 persons were tried of whom 449 were convicted. Sessions Courts in Upper Burma tried 110 persons, and convicted 75. The decrease in appeals in Lower Burma was not maintained, but in Upper Burma there was this year a decrease.

Central Provinces. In the Central Provinces 25,709 cases were reported as against 35,428 in 1897, of which 23,441, or 91 per cent., were returned as true. There has been a decrease in almost all kinds of heinous crime. The percentage of convictions before the magistrates fell from 68·3 to 52·3. The percentage of convictions before Sessions Judges fell from 64·4 to 62·2. The criminal statistics as a whole show a return to normal conditions after the abnormal results of the years of famine. The total number of persons punished in Magistrates' Courts fell by 50 per cent. Appeals to District Magistrates, to Courts of Session, and to the Judicial Commissioner have fallen by 69, 30, and 47 per cent. to 996, 1,278, and 166 respectively. The percentage of appeals of these three classes rejected was 56, 71, and 58 per cent. respectively. During the year 22 death sentences were referred to the Judicial Commissioner for confirmation.

Assam. Of 32,764 offences reported during the year in Assam (as against 29,384 in 1897), 22,353 (as against 21,773) were found to be true. The number of cases tried was 15,671, affecting 25,350 persons, of whom 13,753 were convicted. The number of offences returned as true showed an increase of about 8 per cent. in the Assam Valley districts, and about 11 per cent. in the Surma Valley (Cachar and Sylhet) over the figures of 1897, but there was no very marked

increase in any special class of crime. It is noticeable that there was a general decrease in the number of cases under the Emigration Act. CRIMINAL JUSTICE.

Two Sessions Judges and eight District Magistrates were employed in the Province. The former in their original jurisdiction tried 223 persons, convicting 153. The number of appeals instituted before the High Court was 41, in 30 of which original convictions were upheld. Subordinate Courts decided 1,500 appeals, upholding original sentence in 1,111 cases.

The Hyderabad Assigned Districts' Report on Criminal Justice covers not only Berar, but the cantonment of Secunderabad, the Residency Bazars, and certain railway lands in the Nizam's Dominions, and six Hyderabad Contingent stations. The total number of fresh offences reported was 22,821 (as against 17,536 in 1897), and the number reported true was 20,401 (as against 15,487). The total number of cases brought to trial in 1898 was 20,505, affecting 33,077 persons, of whom 16,645 were convicted. Hyderabad Assigned Districts.

In Berar 16,126 offences were brought to trial, a number slightly greater than that in 1897. At the same time there was here, as elsewhere, a considerable decrease (due to the favourable conditions of the year) in the number of offences against property. As regards punishments, the sentence of fine was much more freely employed, but it must be noted that the general poverty in 1897 had caused slight sentences of imprisonment to be passed in many cases which would, under normal conditions, have been visited by fines. In the year under review 940 appeal cases were disposed of, previous decisions being confirmed in 63 per cent. of these trials.

The number of offences reported in the Madras Presidency in 1898 was 330,634, of which 318,000 were returned as true. The number of offences tried was 313,088, affecting 480,125 persons, of whom 256,697 were convicted. These figures mark an increase on those for 1897, which is mainly attributable to a greater number of prosecutions under the Madras City Police Act, the District Municipalities Act, and the Forest Act. The number of offences under the Indian Penal Code decreased. Madras.

Magistrates' courts outside Madras disposed of 253,183 cases, trying 415,608 persons. The proportion of convictions in these courts was 48·92 per cent. for the whole Presidency, the high percentage of 70·25 being recorded in the Bellary division. The number of sentences of fine increased. Presidency magistrates in the town of Madras disposed of 57,888 cases, concerning 66,503 persons, of whom 87·38 per cent. were convicted. Courts of Session in their original jurisdiction tried 1,253 cases, concerning 3,306 persons, of whom 1,373 persons were tried by jury, 1,632 with the aid of assessors, and 24 both by jury and assessors.

The High Court on its original side dealt with 37 cases involving 45 persons. The proportion of convictions was 80 per cent.

As regards appellate jurisdiction, magistrates received during the year 9,188 appeals preferred by 17,346 persons, and disposed of 17,573 appellants, of whom 63 per cent. were unsuccessful. Sessions Courts heard 2,170 appellants, confirming sentence in 1,566 cases, and the High Court 1,179 appellants, confirming the sentences of lower courts in 65·84 per cent. of the cases.

Criminal jurisdiction was exercised in the Bombay Presidency by the following courts:— Bombay.

Regulation Provinces.

The High Court.	4 Presidency magistrates.
16 Sessions Judges and Joint Sessions Judges.	*119 first class magistrates.*
	209 magistrates of the second class.
5 Assistant Sessions Judges.	*213 magistrates of the third class.*
18 district magistrates.	14,238 police patels.

Sind.

The Sadar Court.	42 magistrates of first class.
4 Sessions Judges.	58 magistrates of second class.
2 Additional or Joint Sessions Judges.	50 magistrates of third class.
5 district magistrates.	

Of the High Court judges, five were Europeans and two natives; of 25 Sessions Judges, Joint Sessions Judges, and Assistant Sessions Judges, eight

CRIMINAL JUSTICE. were natives, three of them being statutory civilians; of 180 first-class magistrates, 127 were natives; of the second and third class magistrates, all but 16 were natives.

Out of 277,504 offences reported 227,269 were returned as true. The number of cases brought to trial in 1898 was 237,360, involving 372,366 persons, of whom 109,189 were convicted, and 94,148 remained under trial. The ratio of number of offences returned as true to population was in the year under review 1 to 83; in the previous year it had been 1 to 92. In ten districts, however, there was a decrease of crime. Bombay City continues to bear the worst criminal record in the Presidency. Offences under special and local laws decreased in number during the year, as did thefts and robberies, but the number of murders rose from 230 to 290.

Appellate courts throughout Bombay and Sind (including the High Court) considered the cases of 11,666 persons, and rejected appeals, or confirmed original sentences, in 8,598 cases. The High Court itself dealt with 1,343 appellants, of whom 77·7 per cent. were unsuccessful.

Coorg. Out of 2,712 fresh offences reported (against 2,949 in 1897), 1,851 were reported true. The number of cases brought to trial was 1,925, affecting 3,019 persons, of whom 801 were convicted. Appeal courts dealt with 198 persons upholding previous sentences against 109 appellants.

JAILS.

JAILS. The conditions which in 1897 very unfavourably affected jail administration were reversed in 1898. Prosperity returned to the country, prices fell, crime diminished. The jails therefore were not overcrowded, and discipline was more easily maintained. The prisoners were not predisposed to disease by semi-starvation, added to which there was a remarkable absence of cholera throughout every province but Madras. The gross cost was greatly reduced by the diminution in the number of convicts and the net cost by the increased demand for jail manufactures.

There were 40 central jails, 191 district jails, and 496 subordinate jails and lock-ups, of which 303 were in Madras alone. These numbers hardly vary from year to year.

The variations of the jail population in the last three years are best given in tabular form:—

	1898.	1897.	1896.
Jail population on 1st January	109,942	109,934	101,061
Admissions during the year	465,921	568,348	476,180
Aggregate	575,863	678,282	577,241
Discharged during the year	473,736	568,429	467,307
Jail population 31st December	102,127	109,853	109,934
Convict population	101,035	99,597	94,052
Admissions during the year	174,110	215,065	182,023
Aggregate	275,145	314,662	276,075
Released during the year	177,403	209,227	172,279
Casualties	3,912	4,400	4,207
Convict population on 31st December	93,830	101,035	99,589

These figures show a return to normal conditions. The improvement was shared by all provinces except Madras, Assam, and Coorg, and was due to a better season following a year of famine and high prices. It was greatest in the North-West Provinces and Oudh, where the admissions decreased by 37·1 per

cent. In Madras the admissions rose from 32,198 to 35,617. The Government do not admit that this was entirely due to the prevalence of distress during the early part of the year, and have directed attention to the question how far the existing jail system is successful in exercising a deterrent effect on criminals. The release of 21,684 persons in 1897 in celebration of the 60th year of Her Majesty's reign, and the reduced number of admissions in 1898 account for the smaller number of persons released in the latter year. JAILS.

Classified according to religion there were 46,932 Muhammadans, 106,862 Hindus and Sikhs, 14,186 Buddhists and Jains, 2,195 Christians, and 3,874 of all other classes; these figures representing fewer Muhammadans (8·45 per cent.), Hindus and Sikhs (23·25 per cent.), and Buddhists (9·5 per cent.), and more Christians (25 per cent.).

Classified by age, 1,871 were under 16 years of age, 138,202 between 16 and 40, 30,896 between 40 and 60, and 3,080 over 60 years of age. Compared with 1897 these figures represent a decrease under each period respectively of 672 or 26·7 per cent.; 31,142, or over 18 per cent.; 8,081, or 21 per cent., and 1,049, or more than 25 per cent.

Madras, Bombay, the North-West Provinces, and Oudh, and the Central Provinces possess, each, a reformatory school for juvenile offenders. Bengal has two, and it is proposed to establish a school in the Punjab. At the close of the year 1,249 boys were confined in them, being 48 less than at the close of 1898. The Government of India have under consideration the system of management and administration of reformatory schools with a view to rendering them more efficient agents of reformation and assisting the inmates to earn an honest livelihood on leaving school.

Of the convicts admitted into jail in 1898, 10·5 per cent. were able to read and write, 2·6 could read only, and 86·9 per cent. were illiterate. These figures show an improvement on the corresponding percentages in 1897 of 8·8, 2·7, and 88·5 per cent. As usual, Burma's record is the best, and that of the North-West Provinces and Oudh is the worst.

Of the 163,511 male convicts, 93,260 or 57 per cent. were engaged in agriculture or with animals, the proportion being larger than in 1897; nearly 10 per cent. were in service, 4·8 per cent. were engaged in commerce or trade, over 3 per cent. were artisans, 4 per cent. were professional persons, 2·5 per cent. were employed under Government or local authorities, and 18·3 per cent. come under the head of miscellaneous pursuits. There was, of course, a decrease under all heads, and the largest proportionate decrease was among those whose previous calling is unclassified, and who, including daily labourers, suffered most in 1897.

The condition of the female convicts, numbering 10,528, shows that 60 per cent. were married women, about 5·9 per cent. were unmarried, about 30 per cent. were widows, and nearly 4·3 per cent. were prostitutes, this class in 1897 having numbered 2·8 per cent. only.

In 1897 persons who were driven by want to petty theft were as far as possible not sent to prison. In 1898, therefore, when the reason for leniency no longer existed, the proportion of sentences not exceeding one month rose from 31·47 to 33·35 per cent. of the total admissions. In 1897 sentences with the limit of three, six, and 12 months were 19·17, 18·33, and 15·56 per cent. of the total admissions. In 1898 they were respectively 18·72, 17·02, and 15·68. There were fewer sentences of one to two years and two to five, namely 8·3 and 3·91 per cent., compared with 8·64 and 4·11 per cent. of the total admissions in 1897. The proportion of sentences of five to 10 years and exceeding 10 years increased from 1·46 and ·06 to 1·51 and ·07. Transportations for life or for a term rose from ·86 per cent. to ·89 per cent., and death sentences from ·34 to ·35. Of the total number of convicts admitted into jail 24,272 or 13·9 per cent. had been previously convicted, the percentage in the previous year having been 14·26. Considerable progress was made in introducing and perfecting the system of identifying old offenders by finger impressions.

The average number of convicts who were sentenced to labour fell from 98,900 to 94,234, of whom 8 per cent. were employed as prison officers, 10·7 per cent. as prison servants, and 39·3 per cent. in manufactures, the remainder being employed in gardening, jail building, and repairs, and the preparation of articles for consumption in jails.

JAILS.

There has for some years past been a steady increase in the number of recorded offences committed by convicts, the figures having risen from 134,284 in 1893 to 164,902 in 1897. In 1898 notwithstanding the diminution in the jail population the number of offences rose again to 184,500. The increase is mainly the result of stricter discipline and more accurate recording of offences, but the great variation between figures for different jails shows that the enforcement of discipline is in many places still irregular, and that the subject requires constant watchfulness and care.

Although the figures for the North-Western Provinces and Oudh show a considerable rise over those of previous years, it will be seen that they are still proportionately lower than in the neighbouring provinces of Bengal and the Punjab. The number of more serious offences tried by criminal courts fell from 339 to 308.

Offences dealt with by Superintendents.

	1898.		1897.		1896.	
	Daily Average Population.	Offences.	Daily Average Population.	Offences.	Daily Average Population.	Offences.
Madras - - - - - -	9,150	14,965	8,635	12,956	8,263	15,436
Bombay - - - - - -	8,575	10,789	7,760	9,390	7,100	6,150
Bengal - - - - - -	17,183	38,439	17,366	38,406	15,895	35,548
N. W. P and Oudh - - - -	30,246	35,163	33,982	27,452	30,784	17,570
Punjab - - - - - -	11,524	31,010	11,648	29,965	10,940	33,807
Burma - - - - - -	12,360	45,353	13,063	37,177	14,031	42,646
Central Provinces - - - -	4,776	5,987	6,838	7,311	5,196	6,495
Assam - - - - - -	1,439	694	1,371	757	1,391	1,059
Coorg - - - - - -	78	199	72	125	87	122
Berar - - - - - -	1,521	1,603	1,697	1,024	1,344	946
	96,852	184,202	101,832	164,563	95,031	159,779

There was a rise in the number of major punishments in all the larger provinces except Bombay, where the number diminished from 2,857 to 2,351. The punishment of separate cellular and solitary confinement was most resorted to in the Punjab, where, however, the figure fell from 4,278 in 1897 to 3,548. In Burma there were 804 cases of penal diet combined with solitary confinement. In the North-Western Provinces and Oudh the number of cases in which fetters were imposed as a punishment rose from 896 in 1897 to 2,473 in 1898, and cases of solitary confinement, which numbered 386 in 1896, and 1,080 in 1897, fell to 981 in 1898 ; in the same province cases of corporal punishment diminished from 416 to 352, Burma following with 339, and Bengal with 327. In the Punjab a rise in the number of major punishments by fetters, from 539 in 1897 to 2,014 in 1898, was accompanied by a rise in the total number of major punishments, and a fall of 730 in the punishment of solitary confinement. With a slight rise in the total number of corporal punishments throughout India, the general proportion of corporal to total punishments fell from ·99 to ·9 per cent.

The number of convicts who came under the mark system rose from 28,891 to 30,027, the former number having been abnormally low, owing to the liberation of prisoners at the time of the Jubilee. As is usual, the great majority (82·5 per cent.) of those who earned remissions in 1898 were under sentences not exceeding two years. The maximum remission (2,082 days, as compared with 1,843 days in 1897), was earned by a convict in Burma, under a sentence exceeding 10 years. The largest amount earned by a convict under a year's sentence was 74 days. In some of the provinces gratuities were paid to convicts on their release, the maximum (Rs. 31·14) being paid to a convict released in the Bombay Presidency. The mark system has not in every province been attended by the degree of success anticipated in the reduction of prison offences, and in stimulating the convicts to better conduct and greater

industry, but on the whole it appears to have been useful. The question of simplifying the rules is under consideration, and as the benefits of the system become better understood by the convicts, better results may be expected in the future. JAILS.

Little progress has been made in most provinces in carrying out the instructions of the Government of India that sleeping wards should be fitted with cubicles for the separate confinement of prisoners by night, but in Madras there is now sufficient cellular accommodation for 2,328 prisoners, representing 20½ per cent. of the total jail accommodation. In the other provinces lack of funds and the peculiar construction of existing jails retards the introduction of the measure.

The gross expenditure on jails, which had risen steadily from £374,451 in 1894 to £504,152 in 1897, fell to £438,735 in 1898, the gross cost per prisoner at the same time declining in the last year from Rs. 67. 5. 7. to Rs. 62. 4. 6. This diminished cost was the result of a smaller jail population and lower prices. The cost of establishment fell from £147,614 to £143,333; that of dieting, from £260,612 to £202,116. Hospital charges decreased slightly to £22,863, the average hospital expenses of a sick prisoner being highest in Bengal (Rs. 145. 2. 8.) and lowest in the North-Western Provinces and Oudh (Rs. 52. 14. 10). These figures are an increase upon those of 1897 for the same provinces, Rs. 137. 10. 4 and Rs. 44. 12. 1. In Bengal the rise has been steady, from Rs. 94. 4. 10 in 1894. With the lower prices prevailing in 1898, there is no obvious explanation of the rise in hospital charges in that year. The total cash earnings of prisoners rose from £72,929 to £86,364, but did not reach the sum earned in 1896 (£89,510). In Bengal the increase was from £13,289 to £25,221, in Madras from £2,761 to £12,511, in Berar from £1,736 to £3,524. In Burma alone there was a large falling off (£30,545 to £14,592). The average cash earnings per head of average strength were highest in Berar (Rs. 32. 12. 3), and lowest in the North-Western Provinces and Oudh (Rs. 5. 8. 8). Deducting these earnings from the gross cost, the result is a net cost to Government of £352,371, averaging a fraction over Rs. 50 per head of average strength, compared with a net cost of £432,222 in 1897, and of £326,882 in 1896.

A marked improvement in the health of the prisoners is shown in the ratio per 1,000 of deaths (25·3), admissions to hospital (916.6), and daily average sick (37·3), these figures being the lowest in the last five years. In every province but the Punjab the death-rate was reduced. In Bombay the rate (21·3) was the lowest since 1887; in Bengal it was the lowest on record (22·5). In Madras it fell from 47·45 per thousand to 26·2; in the North-Western Provinces and Oudh from 35·47 to 28·7; in the Central Provinces from close on 135 per thousand to 34·6. Against 4,462 deaths in 1897 the number in 1898 was 2,673. This improvement was mainly owing to the entire absence of cholera in six of the provinces, and to the small death-rate in the others, excepting Madras, where exceptionally high rates in some districts were balanced by very low rates in others. The health of the jail population is mainly a question of unremitting attention to their duties on the part of those responsible for the welfare of the prisoners from day to day, but the best efforts are in some cases defeated by bad sites and unsuitable buildings. The highest medical authority is of opinion that ultimately the convict death-rates should not, in most provinces, in ordinary years, exceed 15 per thousand.

CIVIL JUSTICE.

The number of civil suits for disposal on the original side of the Calcutta High Court was 1,973, against 1,948 in 1897; 628 suits were decided, and the pending file amounted to 1,275. CIVIL JUSTICE Bengal.

Out of 3,646 first and second appeals to the High Court from the decrees and orders of subordinate courts in Bengal 2,913 were decided. In cases affecting the lower courts their decisions were reversed or varied in 19·6 per cent. of the

CIVIL JUSTICE

appeals from original decrees, in 11·8 per cent. of the appeals from appellate decrees, and in 12·6 per cent. of the miscellaneous appeals; the corresponding proportions for 1897 being 25·3, 7·8, and 18·4 per cent. respectively.

The number of suits instituted in the civil courts subordinate to the High Court has risen from 590,515 in 1897 to 591,793 in 1898, and the number decided from 602,472 to 608,763. Though temporary additional assistance is provided from time to time the pending file grows, and at the close of 1898 numbered 95,194. Of this number, 1,405 were more than a year old, 5,385 more than six months, and 29,986 more than three months.

In appellate courts subordinate to the High Court, the number of appeals instituted and determined rose from 18,663 and 19,516 in 1897 to 21,381 and 22,679 respectively, and the pending file was reduced from 10,899 to 10,259. The decisions of the lower courts were reversed or modified in 28·4 per cent. of the total number of appeals, a larger percentage than in appeals heard by the High Court.

In the Presidency small cause court institutions fell from 25,704 to 22,730, and decisions from 26,207 to 23,478, leaving the slightly smaller number of 1,401 cases pending at the close of the year. Institutions in the provincial small cause courts (13,067) were rather less numerous.

North-Western Provinces.

Institutions of civil suits in the North-Western Provinces fell by about 1,000 to 99,172, of which 73 per cent. were for money or moveable property; the total for disposal from 111,441 to 109,602; and the number disposed of from 102,887 to 100,275, and the pending files were increased from 8,554 cases to 9,327. The proportion of contested suits was 27·4 per cent.; *ex parte* decrees were passed in a larger number of cases (33 per cent.); plaintiffs were successful in 59·4 per cent., as against 61·3 per cent. in 1897; the average duration in contested cases was reduced from 79 in 1895, and 71 in 1896, to 62 (as against 61 days in 1897).

The number of appeals for disposal in courts other than the High Court rose from 12,948 in 1897 to 13,294 in 1898, of which 8,192 were disposed of, leaving a pending file of 5,102, which was greater by 371 than at the close of 1897. The results of these appeals were somewhat less favourable to appellants than in 1897, the percentage of sentences upheld being increased from 63 to 64.

The High Court had before it 3,968 cases, a decrease of 204; disposed of 1,855, and left a reduced pending file of 2,113. The Court confirmed 65·1 per cent. of decrees in contested first appeals, and 68·1 per cent. in second appeals.

Oudh.

In Oudh there was a decrease in the number of suits instituted, from 54,457 to 51,506, and a considerable falling-off in the total outturn of work. Nevertheless the number of pending cases was reduced from 6,265 to 4,999. The average work of munsifs has decreased, while that of subordinate judges has increased.

There were 3,033 appeals for disposal by the judges and subordinate judges, or 588 less than in 1896; of these 2,199 were disposed of, reducing the pending file from 891 to 834. The average of work done by subordinate judges was lower, and the average duration of appeals in their courts was reduced from 96·17 days to 91·62, but the average duration of appeals in the courts of District Judges fell back from 356·74 days to 452·76.

The results of appeals were more favourable to the decisions of the lower courts than in 1896, the percentages of decrees reversed or modified having fallen from 39 to 38·6.

In the court of the Judicial Commissioner the number of cases for disposal rose from 4,292 in 1897 to 4,506. The disposals, 3,756, were nearly 2,000 better than in 1897, and the pending list at the close of the year stood at the much reduced figure of 750.

Punjab.

The number of original civil suits instituted in the Punjab in 1898 was 248,801 (against 242,747 in the previous year), the number instituted in District Courts of general jurisdiction showing an increase of 3·7 per cent. on the unusually low figures of 1897. The total number, though higher than in 1897, was lower than in any other year since 1892. The aggregate of litigation about land continues to be abnormally high. The stringency of the money market during 1898 is thought to have increased the amount of litigation. The

total value of the suits was £1,632,972, or £56,708 more than in 1897. Of 287,231 suits for disposal in the District Courts, 261,858 were disposed of, and the pending file, which has risen steadily in the last five years, stood at 25,373 at the close of the year. Honorary Civil Judges disposed of more work than usual. The average duration of contested cases in 1898 fell to 31 days. CIVIL JUSTICE.

The appellate business of the Chief Court increases beyond the powers of the five judges composing it to keep pace with it. Of 3,405 suits before the court 1,400 were disposed of, leaving an increased pending file of 2,005 suits. Even with the appointment of a sixth judge recently the reduction of this list can only be very gradual.

Against 50,995 civil suits instituted in Burma in 1897 the number in 1898 was 51,075. The increase was entirely in Lower Burma, where the total, 38,157, was larger by 471, and a small decrease is recorded in Upper Burma. The establishment of Civil Myooks is considered by the Local Government to have facilitated the administration of civil justice, but some of the judicial authorities hold that the Myooks do not command the confidence of the people. Burma.

The total value of suits in Lower Burma rose from £415,826 to £442,878. In Upper Burma the value of suits fell from £108,425 to £96,010.

Of 50,936 suits disposed of in the province, 10,637 were decided without trial and 22,363 more without contest. In the contested cases judgment was given for the plaintiff in whole or in part in 12,056, or 67·5 per cent., the percentage in 1897 being 69. Execution proceedings were slightly more successful, and realisations better.

Original and second appeals increased somewhat in both Upper and Lower Burma, and the percentage of confirmation fell slightly in Upper and rose in Lower Burma.

The publication of the Digest of Buddhist Law was nearly completed.

The total number of suits filed in the Central Provinces increased by 6·6 per cent. from 91,739 in 1897 to 97,838 in 1898. The number in 1897 had, however, been exceptionally low, in consequence of famine. Of the total number of suits 71 per cent. were for money or moveable property. The percentage of cases disposed of by Civil Judges is the same as in 1897, while Assistant Commissioners show a greater and Munsifs and Small Cause Courts a slightly smaller percentage. The average duration of contested suits was 84·6 days and of uncontested suits 45·9 days. The total number of appeals disposed of shows a decrease from 6,637 to 6,226. The number of appeals for disposal by District Appellate Courts was 6,321 (as against 6,165), of which 5,455 (as against 5,456) were disposed of. The Judicial Commissioner disposed of 449 appeals, as against 778 in 1897. There were 94 applications for revision as against 108 in the previous year. Central Provinces.

The number of civil suits instituted in Assam increased from 27,781 to 27,863, the increase being shared by all except three districts. A decrease in Sylhet is attributed to the effects of the earthquake and to the prevalence of fever. The total value of the suits fell from £161,988 to £149,812. Of 28,136 suits disposed of, 6,103 were contested, a smaller number than in any year since 1893. Assam.

Fewer appeals were instituted in the Appellate Courts of Assam; the number decided rose from 1,104 to 1,194, and the pending list was reduced from 715 to 429. The decrees of the lower courts were confirmed in 64·1 per cent. of the suits.

One hundred and fifty-four appeals were preferred to the High Court of Calcutta; of the 41 appeals decided by that tribunal, 32 resulted in the confirmation of the decrees of the lower courts.

The number of officers employed on civil work in Berar at the close of 1898 was 36, or four less than in 1897. The number of suits instituted in 1897 was 26,348, showing an increase of 2,508, or 10·5 per cent. Including cases pending from 1897, the total number for disposal in 1898 was 32,760 (as against 31,101), and of these 27,188 were disposed of, leaving a diminished balance of 5,592. Of the suits instituted, 21,399, or 81·2 per cent. of the total were for money or moveable property. The aggregate value of the suits was £262,532. Of the total number of suits 74.1 per cent. were contested. Including 406 cases pending from 1897 there were 1,547 appeals for disposal in 1898, as against 1,608 in 1897, and 1,068 were disposed of. Berar.

CIVIL JUSTICE.

Madras.

In the Madras Presidency, besides the Presidency Court of Small Causes, the City Civil Court and High Court in the Presidency Town, there were in the Mofussil 4,774 Village Courts, 67 Revenue Courts, a Cantonment Court of Small Causes, 138 District Munsifs' Courts, 21 Subordinate Judges' Courts, and 23 District Courts.

The number of original suits instituted in all the courts increased from 362,512 in 1897 to 373,792, and that of appeals fell from 12,171 to 11,177.

The suits instituted in the Village Courts (98,249) were more numerous than in any previous year.

The number of suits filed in the Presidency Court of Small Causes decreased from 24,109 to 22,286.

On the original side of the High Court, the number of suits instituted fell from 327 to 233, and of 376 suits in all for disposal 291 were settled, of which 125 were contested. On the appellate side the suits received were 2,798 in 1897, and 2,316 in 1898. The proportion of sentences confirmed was 69·30 per cent. as against 55·10 in 1896.

Among the main features of the year were increased disposals and decreased arrears in Village Courts, decreased disposals and arrears in Revenue Courts, an unprecedented outturn of work in District Munsifs' Courts, and in the High Court a decline in the disposal of original suits and second appeals, and an advance in the disposal of first appeals.

Bombay.

The number of 213,034 suits instituted in all the Civil Courts in the Bombay Presidency in 1898 represents an increase of 34,955, compared with 1897, but the aggregate value of the claims involved fell from £2,460,000 to £2,225,665. The increase in number was most marked in suits before courts of subordinate judges.

The number of suits disposed of was 211,786, and shows an increase of 34,859. Cases undisposed of at the end of the year rose from 35,424 to 38,457. There was an increase in the average duration of suits in Mámlatdárs' Courts, District Courts, and the High Court.

There were 9,987 appeals, of which 5,341 were disposed of. Applications for execution of decrees rose from 217,034 to 276,404, and the sum recovered by all the courts in execution of proceedings from £271,792 to £344,610.

Working of the Dekkan Agriculturists' Relief Act, XVII. of 1879.

The number of suits instituted in the four districts of Poona, Satara, Ahmednagar, and Sholapur, which are subject to the operation of the Dekkan Agriculturists' Relief Act, rose by 47·6 per cent. to 17,012, the increase being ascribed to the recovery from scarcity and the resumption of ordinary avocations.

The number of conciliation agreements and of institutions before the village munsifs increased to 6,796 and 8,790 respectively. The Conciliators are said to have intercepted more than half the litigation which would otherwise have been taken before the courts. The experience of 19 years is said to justify the opinion that the operation of the Act has had a beneficial effect on the relations between the money lenders and the ryots, and has led to the gradual acquiescence by the former in lower rates of interest than are willingly accepted elsewhere.

Coorg.

The total number of suits instituted in Coorg during the year was 2,835, or about 200 less than in 1896. The number disposed of was 2,913.

There were 68 appeals, the percentage of reversals being only 10·29. The number of applications for execution of decrees fell by 393 to 3,620.

CHAPTER IV.

REGISTRATION.

THE Registration Law of 1877 makes compulsory the registration of non-testamentary documents affecting immovable property of the value of 100 rupees and upwards. Under the Transfer of Property Act of 1882, deeds of sale of immovable property of whatever value require to be registered, though if the value of the property affected is less than 100 rupees, transfer may, as an alternative, be effected by delivery. This latter Act is in force now generally throughout India, with the exceptions of Sind, the Punjab, and Burma, in which provinces, if the value is less than 100 rupees, registration of the sale deeds is optional, except that in Upper Burma, which is under special conditions, registration is required of all deeds affecting immovable property. In all provinces the registration of other documents is permitted, at the option of the executing parties. Officers are established in every district for the registration of documents, and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. At the end of 1899–99 there were in British India more than 2,000 registration offices; the total number of documents registered during the year was 2,831,000 or 7 per cent. less than in 1897–98; this total does not include the 138,000 registrations under the Dekkhan Agriculturists Act. The total registration receipts of the year 1898–99 were £293,000, as compared with £323,000 in the preceding year; and the cost of the registration offices was £165,000, leaving a surplus of £128,000, against £158,000 in the year 1897–98. The system of identification by thumb impressions, which was introduced a few years ago, has been gradually extended, and is reported to work well in many provinces. REGISTRATION. General.

The increased prosperity of the year 1898-99 caused a fall in the total number of deeds registered in Bengal from 1,438,000 to 1,318,000; but the latter figure is still higher than in any previous year. Of this total, 876,000 deeds were under the compulsory heading, which has shown a steady progress during recent years. The number of optional registrations, particularly of movable property, is more variable, but in these also there is a tendency to increase. Bengal.

The number of registered transfers of holdings by tenants, paying at fixed rates or enjoying occupancy right, fell from 263,062 in 1897–98 to 246,900 in 1898–99, but the figures are high, and it is probable that the recent increase in these transactions is due to the operation of the Bengal Tenancy Act, which has led the peasantry to understand the rights secured to them; the transfer was made in 171,996 cases to other ryots, and in 21,348 cases to traders or money-lenders. The average price of occupancy holdings was Rs. 48 per acre, compared with Rs. 60 in 1897–98; but a comparison with previous years shows that the price tends to rise, *e.g.*, in 1889–90 it was Rs. 39; in 1892–93, Rs. 45; in 1895–96, Rs. 57. The Muhammadan Marriage Act was in force in 30 districts, and 15 new offices for registrations under the Act were opened in the year. The number of such registrations was 19,833.

Registrations under the Bengal Land Records Maintenance Act of 1895 were in progress during the year 1898–99 in parts of the Champaran and Mozaffarpur districts, but at present the operations are on a small scale, as the final records of only 909 villages have been handed over by the settlement officer. The mutations registered during the year numbered 4,802, or 988 less than in 1897–98. But this decrease was almost entirely due to a proclamation issued by the owners of the Bettiah Estate in Champaran, forbidding transfer of occupancy holdings without consent of the landlord, in view of a decision of the High Court on this point. Allowing for this, however, it appears that considerably less than half of the mutations have been registered, and that to this extent the record of rights has not been kept up.

REGISTRATION.

North-Western Provinces and Oudh.

The number of documents registered in the North-Western Provinces and Oudh fell from 230,000 to 198,400. The variation was proportionately largest under mortgages of immovable property of small value, and short term leases, for which registration was optional. The number of mortgages registered showed a decrease of 17 per cent. as compared with the preceding year; sales of land fell 15 per cent. The number of documents, other than deeds of gift, relating to movable property, for which registration was optional, fell from 42,208 to 38,032.

The effect of the famine upon registration may be seen in the following figures, in which the year 1895–96 has been arbitrarily taken as the standard of comparison :—

1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
91	98	100	108	100	86

It appears from these figures that the year under report showed a decrease as compared with 1893–94, which was before the famine; but this was only in documents relating to movable property, other registrations being rather higher.

Punjab.

The number of documents registered in the Punjab in the year 1898-99 was 141,000, or 19 per cent. less than in the two famine-affected years preceding. All classes of documents contribute to the decrease, but the number of registrations of movable property is always insignificant. With regard to immovable property, registration is optional if the value be less than 100 rupees; in the more valuable class, of which registration is compulsory, there were 88,758 deeds registered, of which 17,519 related to sales, and 50,997 to mortgages, of agricultural land. These figures, though they fall short of those of 1896-97 and 1897–98, exceed those of any of the preceding three years. Special inquiry into the question of transfers of agricultural land in the Province has resulted in the following return of registrations for the last two financial years :—

——	—	Mortgages with possession.	Mortgages without possession.	Sales.
By Land owners to Money-lenders	1897-98	41,090	7,820	10,355
	1898-99	29,939	6,365	8,874
By Money-lenders to Landowners	1897-98	2,715	249	1,691
	1898-99	2,567	266	1,457
By Landowners to Landowners	1897-98	41,085		14,674
	1898-99	31,469		11,853

The total value of the agricultural land registered as sold or mortgaged during the past three years was, in lakhs of rupees :—

—	Mortgages.	Sales.
1896-97	275	122
1897-98	291	110
1898-99	227	101

These figures, however, are of necessity not so complete as the revenue returns, which are dealt with below in the Land Revenue chapter.

Burma.

The number of registrations in Lower Burma increased from 15,648 to 18,035. The number of optional registrations of all kinds remained about the same, but there was a large increase in the number of transfers of which

registration is compulsory, and the aggregate value of land so transferred, excluding transfers below 100 rupees in value, was £575,000, or 28 per cent. above that of the previous year. This increase is ascribed to a rise in the value of land, and a more easy money market. REGISTRATION.

The registration system of Upper Burma was altered during the year by a notification that all documents of which the registration is not compulsory are permitted to be registered; it still differs from that of Lower Burma in that all deeds relating to transfers of land, however small the value, must be registered. The registered deeds affecting immovable property showed an increase as compared with previous years, and amounted in total value to £191,100; 135 deeds affecting movable property were filed under the new system. The total number of documents registered rose from 5,046 to 5,412.

The decrease in registrations in the Central Provinces was continued during the year; up to 1896–97 there had been a steady increase, but the agricultural depression, which at first stimulated alienations of land, has in the last two years made capital scarce and business sluggish. The fall in 1898–99 was also partly due to restrictions on registration introduced by the Central Provinces Tenancy Act, which came into force in 1898. Of the 29,449 registrations, 23,296 were compulsory, including 10,702 deeds of sale. The sale of agricultural land fell from 8,555 to 6,591, and mortgages from 10,490 to 6,625. During the last three years the proportion of sales to non-agriculturists, whether by proprietors or by tenants, was smaller than in the preceding triennium. The value of the property represented by all classes of registered documents fell from £850,000 to £738,000, of which £259,000 was under sales, and £302,000 under mortgages, of immovable property. Central Provinces.

1896–97	-	39,494
1897–98	-	36,975
1898–99	-	29,449

In Assam 44,082 documents were registered, or 12 per cent. more than the total of the preceding year; 75 per cent. of the registrations occurred in the Sylhet district. The unfavourable circumstances of the previous year had caused a slight check in the growth of the operations, but it was resumed in 1897–98, and the increase was spread over every class of document and nearly all parts of the province. Assam.

The marriages registered under the Muhammadan Marriage Act were 382, as compared with 305 and 345 in the two preceding years, but the Act is reported to be not popular among the Muhammadans of Cachar and Sylhet, in which districts it is in force.

The abnormal increase in the registrations in Madras for the year 1897–98 was followed by a decline in the year under report of 2½ per cent., from 884,000 to 862,000; but this number is higher than that of any other year excepting 1892–93. The number of registered sales of land was 275,000 in 1898–99, which is more than in any year but in 1897–98; the number of other deeds affecting immovable property was also higher than in previous years, but those relating to movable property show a decline. As usual, the Malabar district showed the largest number of registrations, amounting to 17½ per cent. of the presidency total, and working out at 57 documents per 1,000 of the population, as compared with 25 documents per 1,000 for the whole presidency. Madras.

The number of registrations in Bombay was 183,000 or 4·2 per cent. less than in 1897–98, and smaller than in any year since 1892–93. The decrease occurred in under both the compulsory and the optional classes, and the cause of it was the plague, which has paralysed trade in the places where it has assumed an acute form. Registered deeds of sale and mortgages of immovable property numbered 64,221 and 71,998 respectively, but the registration of deeds transferring land of value less than 100 rupees is not compulsory in Sindh. Bombay.

Under the special law for the protection of Dekkhan agriculturists in the four districts of Poona, Satara, Ahmadnagar, and Sholapur, there were 138,000 registrations, which was nearly 24 per cent. below the total of the previous year. Of the registered sales, leases, and mortgages of land, 48 per cent. were between agriculturists on both sides. The aggregate value of property concerned in these special registrations was £454,000. The plague was prevalent during the year in each of the four districts above-named, and was doubtless responsible for the decrease in the registered deeds.

REGISTRATION. Berar.

The number of registrations in Berar had been abnormally large in the preceding two years, but in 1898-99 it fell to 32,156, which was the lowest since 1892-93. All kinds of documents showed a decrease, which was due, here as elsewhere, to the returning prosperity of the people.

JOINT STOCK COMPANIES.

JOINT STOCK COMPANIES.

Particulars of the joint stock companies started in Bengal during the year 1898-99 were not available at the time of issue of this statement. The figures given last year have, therefore, been reproduced. During the year 1897–98, in all provinces of India, the number of new joint stock companies registered was 179, with a nominal capital of £2,054,000 and a paid-up capital of £238,000; while 203 companies, with a paid-up capital of £591,000, ceased to work. The number of new companies registered in the previous year was 388. At the end of the year there were in operation 1,572 companies, with a nominal capital of £33,426,000 and a paid-up capital of £22,082,000. The companies work chiefly in the provinces of Bengal and Bombay; more than 84 per cent. of all the paid-up capital pertains to those two provinces; in Madras the paid-up capital was £1,626,000 and in the North-Western Provinces it was £852,000; in no other province did the aggregate paid-up capital of registered companies reach £400,000. The Bombay companies are, taking the figures as they stand, much the richest, the average of paid-up capital for the 349 companies in that presidency being £26,400; while for the 666 companies of Bengal it is £14,000, for the 307 of Madras £5,300, and for the 100 of Mysore £2,400. The low average in Bengal is due to the recent large development of "provident" companies, with practically no paid-up capital at all. The distribution of paid-up capital among registered companies for different classes of industry was somewhat as follows:—

	Paid-up Capital. £		Paid-up Capital. £
Banking and insurance -	2,940,000	Brewery companies - -	113,000
Trading and shipping - -	3,471,000	Mills and presses - -	10,853,000
Mining and quarrying -	1,319,000	Tea and planting - -	2,231,000

The companies with the largest aggregate subscribed capital, £10,853,000, were for weaving and spinning, or for pressing cotton, jute, wool, and silk; and nearly two-thirds of the capital of such undertakings belonged to the Bombay presidency. The capital invested in mills of these kinds increased nearly 9½ per cent. during the year; while the capital invested in tea-planting decreased. In the 14 years 1884-98 the number of joint stock companies at work has risen from 694 to 1,572; the paid-up capital has risen from 13⅘ to over 22 millions of pounds.

Bengal.

In Bengal 49 new companies were registered during the year 1897–98, with a nominal capital of £308,000; while 144 companies, with a nominal capital of £751,000, were wound up during the year. Of the 52 Native provident companies limited by guarantee but possessing no capital, which were working at the end of 1896–97, 13 had been wound up.

Bombay.

In Bombay 129 new companies were registered in the year 1898-99, including 104 provident societies. The increase of the latter during the last two years has been remarkable, and it is not regarded as a benefit to the subscribers. Twenty-five companies went into liquidation, and at the end of the year 534 joint stock companies were in existence, with a paid-up capital of £9,919,000; 228 companies, with a paid-up capital of £7,469,000, were working cotton and other mills and presses.

Madras.

In Madras 47 new companies were registered, in the year 1898–99, or 24 less than in the previous year, owing to dulness of trade and the stringency of the money market. Of these, two had no capital, 37 were banking and loan associations, and 10 were trading, manufacturing or planting companies. The nominal capital was £279,000; the paid-up capital £84,000. The number of companies on the register at the end of the year was 335, with a paid-up capital of £1,886,000.

PATENTS AND DESIGNS.

PATENTS. The total number of applications filed in 1897, the latest year for which statistics are to hand, for the registration of inventions under the Patents' Law was 451, as compared with 460 in the preceding year. Of these, 19 were refused or abandoned, and 83 were undecided at the end of the year. Of the applications, 94, as compared with 107 in the year 1896, were referred for the opinion of experts. The number of specifications filed during the year was 392, or eighty more than in the preceding year. The number of exclusive privileges kept alive by payment of the prescribed fees was 251, as compared with 236 in the previous year. There were 19 applications for the registration of designs, of which five were rejected. The number of applications for patents made by natives of India fell from 49 in 1896 to 43 in 1897. Many of the other applications were due to the desire of European and American inventors to acquire Indian protection for their inventions.

CHAPTER V.

FINANCE.

FINANCE.

Form of Accounts.

Form of Accounts.

From 1886–87 to 1898–99, the Accounts of the Government of India were rendered so as to show transactions in India in tens of rupees (Rx.); transactions in England were shown in sterling; and a column entitled "Exchange" was added so as to bring the revenue and expenditure in the two countries under each head of account into the common denomination of tens of rupees, as given in a final column. The financial tables in the Moral and Material Progress Statement were drawn up in accordance with this system.

Sovereigns having now been made legal tender in India, and being at present interchangeable with rupees at the rate of one sovereign for fifteen rupees, the Government of India have decided to alter the form of the Accounts. Beginning with the year 1899–1900, the Accounts are to be prepared so as to show the transactions in India in rupees; there will then be given the equivalent in pounds of the rupee totals, the rupee being taken for the purpose as one-fifteenth of a pound; the sterling transactions in England will then be stated; and the last two sets of figures will be added together so as to show in pounds the combined transactions in India and England. Thus, whereas formerly the English transactions were brought into tens of rupees by adding the Exchange, under the new plan the Indian transactions will be converted into pounds and added to those in sterling. The column entitled "Exchange" will no longer appear; and the comparatively small sums which have to be brought to account owing to the facts that the remittances are not effected at exactly sixteen pence to the rupee, and that the Government is under obligations to carry out various transactions at fixed rates differing from the rate of sixteen pence to the rupee, will be included in a single line under the head of Exchange in the Miscellaneous group of Revenue and Expenditure.

The new system has been followed in the present Statement in anticipation of its adoption in the Finance and Revenue Accounts of the Government of India.

Gross Revenue and Expenditure.

Gross Revenue and Expenditure.

THE gross revenue and expenditure of British India in 1898–99 may be thus compared with the figures for 1897–98:—

	1897–98.	1898–99.	Difference.
	£.	£.	£.
Revenue - - - - - -	63,613,050	67,595,815	+3,982,765
Expenditure - - - - -	67,185,857	64,954,942	—*2,230,915*
Surplus (+) or *Deficit* (—) - £.	—*3,572,807*	2,640,873	6,213,680 (better)

In the gross revenue are included very large receipts, amounting altogether to about one-third of the whole, which (being derived from the working of the railways and canals, the operations of the Postal and Telegraph Departments, the interest received on loans to municipalities, landholders, &c., and on the investments of the Currency Department, the contributions by officers towards their pensions, the sale of stores, and the receipts of the various administrative departments), are rather of the nature of a set-off against the corresponding charges than revenue proper; and, on the other hand, there are included in the gross expenditure, first, the refunds and drawbacks, assignments and compensations, which are a direct set-off against the revenue; secondly, the charge incurred for the production of opium, which is subject to variations caused by the state of the season and of trade; thirdly, the charge for the maintenance of public works, which necessarily increases as more works are brought into operation. The financial position of the Government can be much better appreciated by looking at the net income and expenditure, a statement of which is annually laid before Parliament.* The following is a statement for 1897–98 and 1898–99 of the net revenue, *i.e.*, the revenue after the deduction

* *See* Parliamentary Paper H. of C. 203 of 1900.

of the refunds and drawbacks, assignments and compensations, and opium charges; and the net expenditure, *i.e.*, the expenditure after the deduction of the various departmental receipts:—

NET REVENUE.

Net revenue.

	1897-98.		1898-99.		Increase or *Decrease* (—).	
	£.	£.	£.	£.	£.	£.
Land Revenue, &c.:						
Land Revenue	16,365,516		17,547,611		1,182,095	
Forests	1,156,685		1,236,910		80,225	
Tributes from Native States	562,782		579,550		16,768	
		18,084,983		19,364,071		1,279,088
Opium: Net Receipts	—	1,855,841	—	2,230,308	—	374,467
Taxation:						
Salt	5,472,825		5,813,957		341,132	
Stamps	3,189,251		3,161,672		*—27,579*	
Excise	3,609,389		3,782,622		173,233	
Provincial Rates	2,478,374		2,609,663		131,289	
Customs	3,024,356		3,127,230		102,874	
Assessed Taxes	1,254,155		1,274,020		19,865	
Registration	323,613		293,175		*—30,438*	
		19,351,963		20,062,339		710,376
Miscellaneous Receipts:						
Mint	62,554		*—23,713*		*—86,267*	
Miscellaneous	160,195		217,984		57,789	
		222,749		194,271		*—28,478*
Exchange	—	*—644,157*	—	28,628	—	672,785
TOTAL NET REVENUE - £.	—	38,871,879	—	41,879,617	—	3,008,238

NET EXPENDITURE.

Net expenditure.

	1897-98.		1898-99.		Increase or *Decrease* (—).	
	£.	£.	£.	£.	£.	£.
Debt Services:						
Interest on Public Debt (other than that charged to Railways and Irrigation) and other obligations.	—	1,613,037	—	1,311,263	—	*—301,774*
Military Services:						
Army	17,233,297		15,385,042		*—1,848,255*	
Buildings and Roads: Military	740,952		771,493		30,541	
Special Defence Works	15,059		974		*—14,085*	
		17,989,308		16,157,509		*—1,831,799*
Collection of Revenue	—	4,399,322	—	4,302,449	—	*—96,873*
Commercial Services:						
Post Office	*—104,302*		*—125,919*		*—21,617*	
Telegraph	*—179,348*		*—36,115*		143,233	
Railways	709,313		620,165		*—89,148*	
Irrigation	*—283,899*		*—179,760*		104,139	
		141,764		278,371		136,607
Famine Relief and Insurance	—	3,575,343	—	791,543	—	*—2,783,800*
Civil Services:						
Civil Departments	9,321,194		9,335,813		14,619	
Miscellaneous Civil Charges	3,285,469		3,411,739		126,270	
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	2,528		968		*—1,560*	
Buildings and Roads: Civil	2,421,340		2,670,855		249,515	
Provincial and Local Surpluses or Deficits.	*—305,119*		978,234		1,283,353	
		14,725,412		16,397,609		1,672,197
TOTAL NET EXPENDITURE - £.	—	42,444,186	—	39,238,744	—	*—3,205,442*

FINANCE.

Result of the year.

Thus there was an increase of the net revenue by £3,008,238, and a decrease in the net expenditure by £3,205,442, making the position better by £6,213,680, and producing a surplus of £2,640,873 in 1898-99, as compared with a deficit of £3,572,807 in 1897-98. This is the result of an increase of the net revenue in India by £2,983,128, a decrease of net expenditure in India by £3,286,587, and an increase of £56,085 in the net disbursements of the Home Treasury.

Alterations in net revenue and expenditure.

The improvement of £3,008,238 in the net revenue is due especially to the recovery of the land revenue after the famine of 1896–97 and 1897–98, the rise in exchange, and the increase in the net receipts from opium. The improvements under these three heads were £1,182,095, £672,785, and £374,468 respectively. The salt revenue was better by £341,132. There was a substantial increase under excise, provincial rates and customs, and a small improvement in assessed taxes; while stamps and registration showed a slight decline. Further particulars concerning land revenue are given in Chapter VII., and concerning opium in a later section of this chapter. The average rate of exchange at which the remittances of the Government of India were effected in 1897–98 was 1*s.* 3·354*d.* the rupee, and in 1898–99 it was 1*s.* 3·978*d.*

The decrease of £3,205,442 in the net expenditure occurred mainly under the heads of famine relief and insurance, army, and interest on debt. Under the first head there was spent in 1897–98 £3,550,332 on the relief of famine, and £25,011 on the construction of protective irrigation works. In 1898–99 the charge for famine relief was only £26,703; but, in accordance with the principle on which the famine grant was instituted, there was spent a further sum of £764,840 on famine insurance, viz., £460,236 on the construction of protective railways, £7,779 on the construction of protective irrigation works, and £296,825 on the reduction or avoidance of debt, the remainder of the annual grant for this purpose being entered in the Railway Revenue Account. The decrease of expenditure under the head of famine relief and insurance was thus £2,783,800. The army charges show a decrease of £1,848,255, which is mainly due to the fact that there was included in the accounts for 1897–98 a net charge of £2,541,365 on account of military operations on the North-Western frontier, whereas the similar charge included in the accounts for 1898–99 was £695,127. The net charge for interest shows a decrease of £301,774; the chief elements in this improvement are the transfer during the year of £157,327 from the category of "interest on ordinary debt" to that of "interest chargeable to public works," and an increase of £125,641 in the amount received by Government as interest on loans and advances to municipalities, port trusts, and other bodies, on the investments of the Paper Currency Department, and on money lent in England from the cash balance.

The improvements in certain items on the expenditure side of the account which have been mentioned are partly counteracted by changes under other heads. The expenditure on civil buildings and roads is heavier by £249,515, the increase being due to the fact that in 1897–98 the expenditure under this head was kept considerably below the normal amount, in order that the Government might be in a better position to meet the financial burdens caused by the famine. The irrigation account is less favourable by £104,139. This is due to the fact that the drought of 1896–97 and 1897–98 caused an exceptional demand for canal water in those years; and the net receipts from irrigation works were in consequence abnormally large. The increased expenditure shown under miscellaneous civil charges is mainly due to the growth in the civil furlough allowances, superannuation allowances, and pensions paid in England. In 1897–98 the Provincial Governments defrayed from their balances £305,119 of the expenditure of the year. In 1898–99 they added to their balances £978,234 of the assignments which were allotted to them under their agreements with the Government of India. The position of the imperial account was thus altered for the worse in the latter year by £1,283,353.

The tables in the Appendix show the net revenue and expenditure in India of the several provinces under the chief heads for the years 1897–98 and 1898–99, and the net payments in England. The revenue and expenditure of Berar, which form no part of the general finances of the Government of India, are not given in this chapter, but are referred to under Hyderabad, in the chapter

on Native States. The surplus revenues of the various provinces, as shown in the summary on page 9 of the Appendix, were applied to meet the general charges in India and in England in approximately the following proportions:— In 1897-98: Bengal 36¼, North-Western Provinces 16⅓, Madras 14⅓, the Punjab 14⅛, Bombay 12½, Burma 8, and Assam 1¼, while in the Central Provinces there was a deficiency amounting to 3 per cent. In 1898-99: Bengal 31·82, North-Western Provinces 19·08, Bombay 14·37, the Punjab 12·03, Madras 11·97, Burma 7·5, Central Provinces 2·36, and Assam 0·67. FINANCE.

CAPITAL OUTLAY ON PUBLIC WORKS.

The total capital outlay on railways and irrigation works, during the year, was as follows:— Capital outlay on public works.

	1897-98.	1898-99.	Increase.	Decrease.
Amount supplied by borrowing or from the Cash Balances, without being charged against the Revenue of the year:	£.	£.	£.	£.
State Railways	2,421,337	2,846,354	425,017	—
Irrigation Works	461,620	435,699	—	25,921
	2,882,957	3,282,053	399,096	—
Amount met by Debentures issued by the East Indian Railway Company	653,790	—	—	653,790
Amount defrayed from Revenue:				
Provincial Railways	2,528	968	—	1,560
Surveys of Railways charged to Revenue in previous years	6,263	—	—	6,263
Protective Railways	—	460,235	460,235	—
Protective Irrigation Works	25,011	7,779	—	17,232
Other Irrigation Works*	8,477	9,568	1,091	—
TOTAL Direct Outlay by the State	3,579,026	3,760,603	181,577	
In addition to this, the outlay by companies guaranteed or subsidised by the Government was	3,088,695	3,183,291	94,596	
So that the TOTAL Outlay was £.	6,667,721	6,943,894	276,173	

* Excluding capital outlay on the minor works, against which interest is not charged in the accounts.

DEBT.

The following table shows the alteration in the amount of the debt that took place in 1898-99, the amount of the rupee debt in India being expressed in pounds at the rate of Rs. 15 = £1:— Debt.

	Amount of Debt on 31st March 1898.	Amount of Debt on 31st March 1899.	Increase.	Decrease.
In India £.	74,463,756	75,103,132	639,376	—
In England (permanent) £.	117,274,680	119,768,605	2,493,925	—
„ (temporary) £.	6,000,000	4,500,000	—	1,500,000

FINANCE.

In 1898-99 a loan was raised in India at 3½ per cent, to the amount of Rs. 12,000,000, at an average price of Rs. 94.12.6 per cent., and debt was discharged to the extent of Rs. 2,409,360. In England, India 2½ per Cent. Stock to the amount of £6,000,000 was issued, at an average price of £88 10*s.* 5*d.* per cent.; the permanent debt discharged in England during the year was £3,000,000 India 3¼ per Cent. Debentures, £383,500 Oudh and Rohilkund Railway 4 per Cent. Debenture Stock, £478 India 4 per Cent. Stock, in addition to £122,097 of stock cancelled by the operation of Sinking Funds. The temporary debt was diminished during the year by £1,500,000; of the £6,000,000 India (sterling) bills which fell due, only £4,500,000 was replaced by similar bills, issued at average rates of £2 2*s.* 6*d.* and £2 12*s.* per cent. per annum.

SAVINGS BANKS AND OTHER OBLIGATIONS.

Savings banks and other obligations.

The following table shows the amount received and paid on account of savings banks, loans to municipalities, and other obligations in India:—

	1897-98.	1898-99.
	£	£
Savings Banks, &c. (net deposits *or withdrawals*)	*— 216,632*	173,937
Loans to Port Trusts, Municipalities, Native States, &c. by the Imperial Government (net receipts *or disbursements*)	29,975	27,860
Loans by the Provincial Governments (net receipts *or disbursements*)	*— 369,032*	264,618
Other obligations (net receipts *or disbursements*)	103,598	249,399
TOTAL £	*— 452,091*	715,814

CASH BALANCES.

Cash balances.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year:—

	On 1st April			Increase or Decrease.	
	1897.	1898.	1899.	In 1897-98.	In 1898-99.
In India £.	9,249,168	10,654,962	11,177,669	+1,405,794	+ 522,707
In England £.	2,832,354	2,534,244	3,145,768	*— 298,110*	+ 611,524

COINAGE AND PAPER CURRENCY.

Coinage and paper currency.

The value of the coinage at the Mints in India was:—

	1897-98.	1898-99.
	£.	£.
Silver	657,128	465,576
Copper	124,425	32,810
TOTAL	781,553	498,386

The silver coinage in 1898-99 consisted of 4,179,600 rupees for the Native States of Bhopal and Kashmir; 2,056,987 half-rupees, 3,345,704 quarter-rupees, and 5,601,570 eighth-rupees, coined for the Government of India; and 457,862 half-rupees for Kashmir. There were also coined at Bombay, from silver tendered by exchange banks, 21,545,564 British dollars, of which 21,303,216 were issued to the banks, and exported to Singapore, Penang, and Hong Kong.

The receipts and expenditure of the Indian Mints were as follows:— FINANCE.

	1897-98.	1898-99.
	£.	£.
Receipts	121,370	51,954
Expenditure	58,815	75,677
Net Receipts or *Expenditure* (—)	62,555	—23,723

ROYAL ASIATIC SOCIETY LIBRARY OF THE BOMBAY BRANCH OF THE

On the 31st of March 1899 the value of notes in circulation was £18,802,184 being greater by £2,292,818 than on the corresponding date in 1898. The reserve was, in gold, £2,035,448, in silver coin, £10,100,073, and in Government securities, £6,666,663.

CURRENCY POLICY.

In April 1898, the Secretary of State for India appointed a committee, under the chairmanship of the Rt. Hon. Sir Henry H, Fowler, G.C.S.I., M.P., to consider certain proposals made by the Government of India with a view to the effective establishment of a gold standard in India, a policy which had been initiated in 1893 by the closing of the mints to the free coinage of silver for the public. The correspondence on the subject between the Secretary of State and the Government of India, and the Report of the Committee with Minutes of Evidence and other papers, have been presented to Parliament. (*See* Parliamentary Papers C.—8840 and C.—9037 of 1898, and C.—9222, C.—9376, C.—9390, and C.—9421 of 1899). The chief recommendations contained in the report of the Committee, which was signed on the 7th of July 1899, were that the mints should remain closed to the unrestricted coinage of silver; that the British sovereign should be made a legal tender and current coin in India at the rate of one sovereign for fifteen rupees; that sovereigns should be coined in India; that rupees should continue to be legal tender for an unlimited amount; and that the Government should not undertake an obligation to pay gold in exchange for rupees. Currency Policy.

Her Majesty's Government, after careful consideration, came to the conclusion that it was advisable to accept generally, and to act upon, the principles recommended by the Committee. There was accordingly passed in the Council of the Governor General of India on the 15th of September 1899 an Act (XXII. of 1899) by which gold coins, whether coined at the Royal Mint in England, or at any mint established in pursuance of a Proclamation of Her Majesty as a branch of the Royal Mint, were made a legal tender in payment or on account at the rate of fifteen rupees for one sovereign. Arrangements are being made for the coinage of gold in India.

OPIUM.

The opium revenue is raised partly by a monopoly of opium in Bengal and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the North-West Provinces and Oudh; and the area on which cultivation is permissible is calculated each year with a view of obtaining a fixed amount of opium. A few thousand acres of opium are grown in the Punjab for local consumption. The cultivator of opium in the monopoly districts receives advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur to be prepared for the foreign market. The price for some years had been Rs. 5 per seer (two lbs.); and was raised to Rs. 6 per seer, with effect OPIUM General.

Opium.

from the spring of 1895. The chests of manufactured opium are sold by auction at monthly sales which take place in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. Opium is grown in the Native States of Rajputana and Central India. Some of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty, which had been £40 per chest for several years until December 1894, when it was raised to £43⅓. The duty was again reduced to £40 in July 1896, and to £33⅓ in October 1897.

The yield of the opium revenue during recent years has been :—

	1889–90.	1892–93.	1896–97.	1897–98.	1898–99.
Opium Receipts :*	£	£	£	£	£
Auction sales of monopoly opium	4,318,053	4,064,151	3,233,568	2,660,697	2,775,878
Duty on Bombay or Malwa opium	1,260,569	1,117,102	892,189	647,092	888,909
Cost of opium issued to the Excise and other Departments.	143,415	147,533	147,068	145,392	152,099
Total - - -	5,722,037	5,328,786	4,272,825	3,453,181	3,816,886
Opium expenditure, chiefly in Bengal	1,070,071	1,068,330	1,657,795	1,592,744	1,582,193
Net Opium Revenue - £	4,651,966	4,260,456	2,615,030	1,860,437	2,234,693

* These receipts are outside the provincial opium receipts of £662,888 shown in the Excise section of this Statement.

The number of chests of Bengal opium sold, and the average price obtained per chest in recent years, are as follows :—

—	Number.	Average Price.	—	Number.	Average Price.
		Rs.			Rs.
1890–91	57,000	1,037	1897–98	39,300	1,023
1895–96	37,695	1,390	1898–99	39,450	1,055
1896–97	39,000	1,243	1899–1900	31,700	1,217

The exports of Bombay opium to China averaged 28,612 chests in the six years 1889–95; they amounted to 22,289 chests in 1896–97; 16,676 chests in 1897–98; and 29,891 chests in 1898–99. This rise is partly attributable to the failure of the opium crop in parts of China, and is expected to prove temporary.

Bengal.

The area cultivated with the poppy in the Ganges Valley during recent years is shown in the margin to have fluctuated considerably, owing partly to seasonal influences; the area engaged for the cultivation of opium in 1898 was larger than that of 1899, but there was a greater failure of crops in the former year, and the number of chests of provision opium actually manufactured rose from 44,077 in 1898 to 51,719 in 1899. Adding the balance of last year's crop, the total available in 1900 amounts to 61,815 chests, and the number of chests to be sold at the monthly auctions for that year has been fixed at 3,700; in 1899 the number was 3,400. This will leave a reserve of 17,415 chests at the end of the year. A small quantity of opium is used by the Indian Excise Departments. In 1861 the average price of opium sold by auction for the China market was as high as Rs. 1,850 per chest of 140 lbs. weight, but since that year it has fallen; in February 1895 it rose to Rs. 1,540, the highest average at any monthly sale for 23 years; it fell to Rs. 923 in May 1898, but has since risen to Rs. 1,447 in March 1900.

	Acres.
1886 -	594,900
1894 -	458,200
1896 -	519,600
1897 -	562,000
1898 -	540,000
1899 -	564,000

Opium.

The season of 1898–99 promised to be a remarkably good one, but unfavourable weather in February and March injured the crops. The average produce was 11⅛ lbs. per acre in Behar and 13⅗ lbs. per acre in Benares, compared with an average outturn for the last 22 years of 13⅛ lbs. in Behar, and 16 lbs. in Benares. The opium is received and prepared at the Government factories at Patna and Ghazipur, where also small amounts of morphia and codeia are manufactured for the London and Shanghai markets. The number of prosecutions for breaches of the opium laws in the two agencies was 1,367, and 1,168 convictions were obtained.

SALT.

Salt.

General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from ¼th of a rupee (in Burma) to 3¼ rupees (in Bengal) per maund of 82⅔ lbs.; during the year 1895–96 the rate was 2½ rupees over the whole of India, except Burma, where it was one rupee per maund. The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India, and part of Burma and Central India; the salt lakes and pits of Rajputana, which supply the North-Western Provinces, Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. The regions supplied from each source contract or extend, according to varying circumstances of the season, or of markets, or of means of carriage; for instance, when an unusually wet season prevented salt production by solar evaporation at the Sambhur Lake in Rajputana, special supplies from the Bombay coast factories were carried inland, and partly made up for the deficiency; when a railway was opened to the Punjab mines, salt made its way thence further south and east.

The Salt Revenues and Charges in the Year 1898–99 were as follows :—

Province.	Price of Government Salt, and Excise on Salt made Locally.	Duty on Salt Imported from England.	Duty on Salt Imported from other Sources.	Miscellaneous.	Total.	Charges.	Net Salt Revenue.
	£	£	£	£	£	£	£
Northern India - -	1,350,146	—	—	10,341	1,360,487	72,501	1,287,986
Burma - - - -	14,215	83,784	7,437	—	105,436	289	105,147
Bengal - - -	11,066	1,163,058	490,612	10,164	1,674,899	10,884	1,684,015
Madras - - - -	1,325,534	444	628	5,668	1,332,276	116,122	1,216,154
Bombay - - -	1,543,279	590	954	48,659	1,593,483	110,672	1,481,811
Total, 1898–99 -	4,244,240	1,247,876	499,631	74,832	6,066,581	310,468	5,756,113
Total, 1897–98 -	3,929,410	1,067,032	654,896	78,146	5,729,484	315,832	5,413,652

The charges above shown do not include a sum of about £200,000 paid under treaties to Native chiefs who have assigned the management of their salt sources to the British Government. The rate of salt consumption per head of the population differs widely in the several provinces. As there are no means of accurately estimating the present population, the real rate of consumption, and its growth from year to year, cannot be given, but the variation between the provinces can be shown by giving the amount consumed in 1898–99 per head of the population of last census. It was about 19 lbs. in Burma, 17⅓ lbs. in Madras, 11⅛ lbs. in Orissa, 10¼ lbs. in the rest of Bengal, 12¾ lbs. in Bombay (excluding Guzerat, where the consumption is small), 10¾ lbs. in the Central Provinces and Berar, 8¾ lbs. in Behar, 7⅕ lbs. in the North Western Provinces and Oudh, 7½ lbs. in cis-Indus, and 11⅛ lbs. in trans-Indus, Punjab, and 7⅛ lbs. in Rajputana. The small difference, about 15 per cent., due to longer distance from salt sources, in the retail prices of salt between northern

Salt.

and southern India, does not explain the great differences in the rate of consumption per head.

During the last eleven years the total salt consumption of India has been as follows:—

In the Year	Total Actual Consumption of Duty-paid Salt in India, inclusive of Burma.
1885–86	32,289,000 maunds, each maund being equal to 82⅔ lbs. avoirdupois.
1886–87	34,330,000 ,,
1888–89 (the rate of duty was raised in January 1888 from Rs. 2 to Rs. 2½ per maund).	31,474,000 ,,
1890-91	33,722,000 ,,
1892–93	35,451,000 ,,
1893–94	34,029,000 ,,
1894–95	34,555,000 ,,
1895–96	35,090,000 ,,
1896–97	34,639,000 ,,
1897–98	35,123,000 ,,
1898–99	35,770,000 ,,

These figures are not absolutely accurate, because the amount of local salt consumed in Burma is not precisely known, but in the foregoing figures it is estimated at 500,000 maunds in 1898–99, at 600,000 maunds in 1897–98 and 1896-97, at 500,000 maunds for the year 1895-96, at 400,000 maunds in the years 1889–95, and at 560,000 maunds in earlier years.

Northern India.

The salt sources under the control of the Northern India Salt Department are (1) the Rajputana sources, including the Sambhar Lake, and brine springs at Pachbadra and Didwana in the Jodhpur State, and (2) the Punjab sources, including the Mayo, Warcha, and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. From these are supplied the wants of the Punjab, the North-Western Provinces and Oudh, parts of the Behar districts of Bengal, the northern districts of the Central Provinces, and the greater part of the Rajputana and Central India States. The most important sources are the Sambhar Lake and the Mayo mine. At the Sambhar Lake the rainfall was insufficient, but 5,317,712 maunds of salt were manufactured, or 3,486,083 maunds more than in the very bad year 1897-98. In the Mayo mine 1,836,104 maunds of salt were excavated, or rather less than in the previous year. The amount raised at the Kohat mines was 462,375 maunds, which shows a satisfactory recovery from the small production consequent on the raising of the duty in 1896, though a further increase may be expected. The total amount of salt which passed into consumption was 7,945,470 maunds, distributed as follows:—

——	1898-99.	1897-98.
	Maunds.	Maunds.
Punjab, cis-Indus, including Native States and Kashmir.	2,466,780	2,495,908
Punjab, trans-Indus (Kohat salt)	311,249	165,819
North-Western Provinces and Oudh (chiefly Sambhar salt).	3,364,089	3,188,737
Behar	145,460	172,473
Central Provinces	120,388	138,303
Rajputana	948,698	1,006,833
Central India	410,557	379,716
Other places, including Afghanistan	169,249	183,049
Total	7,945,470	7,730,838

The rate of consumption of salt from all sources per head of population in the above provinces cannot be accurately stated, but an approximate estimate is given in the margin,* based on the population of the last census returns. The wholesale prices which prevailed during the year were, in the Punjab, rock salt, Rs. 3 to Rs. 3½; in the North-Western Provinces, Sambhar salt, Rs. 3⅛ to Rs. 3⅝; in the Central Provinces, Bombay salt, Rs. 3⅝ to Rs. 4¼. The gross receipts rose from £1,305,000, to £1,364,000, owing to the larger amount of salt excised; and there was also a saving by the abolition of the Indus Preventive Line in the previous year. The number of convictions for breach of the salt laws rose from 517 to 539. SALT.

*

—	1897-98.	1898-99.
	Lbs.	Lbs.
Punjab, cis-Indus, and Kashmir.	7·53	7·59
Punjab, trans-Indus	8·45	11·11
North-Western Provinces and Oudh.	6·89	7·34
Behar	8·76	8·76
Central Provinces and Berar.	10·99	10·84
Rajputana and Central India.	7·16	7·13

The salt consumed in Bengal comes from abroad or from other parts of India; but there is also in most years a small amount manufactured in Orissa. During the season 1898 this manufacture was stopped, but as the existing stock is sufficient for six years' demand, the issue was not checked; it only amounted, however, to 63,755 maunds. The imported salt paying duty during the year 1898-99 was 10,360,552 maunds. Deducting from these totals the net amount of salt exported by land, the consumption of the province was 9,833,328 maunds, as compared with 9,739,835 maunds in 1897-98. In the maritime tracts of the Presidency, other than Orissa, the manufacture of salt is prohibited. The following figures show the consumption of duty-paid salt per head of population in the last two years:— Bengal.

—	1897-98	1898-99.
	Lbs.	Lbs.
Orissa	10·08	11·13
Other saliferous tracts	9·77	10·03
Rest of Bengal	10·28	10·28

The amount of salt imported by sea during the last two years was as follows:—

—	1897-98.	1898-99.
	Maunds.	Maunds.
The United Kingdom	7,115,000	6,277,000
Germany	973,000	509,000
Bombay	557,000	558,000
Madras	87,000	79,000
Red Sea and Persian Gulf ports	2,333,000	1,996,000
Aden	1,128,000	885,000
Madagascar	29,000	47,000

The imports of 1897-98 were abnormally high, and there was a general fall in the year under report. The supply of Liverpool salt was regular and abundant, and the fall in prices continued. The decline in German salt during the last five years has been very marked. The average price of salt, including duty, at the chief marts of Bengal, decreased by 1 anna

SALT.

10 pied, or nearly 3 per cent., as compared with the previous year. The wholesale price of Liverpool salt, exclusive of duty, ranged from Rs. 124 to Rs. 72 per 100 maunds in 1896–97; from Rs. 98 to Rs. 63 in 1897–98; and from Rs. 73 to Rs. 61 in 1898–99. The consumption of Madras salt increased in Orissa, and its quality was greatly improved, so that it can compete on fairly equal terms with Liverpool salt. It can be sold, apart from the Government duty, at less than half the price of the latter, and it is expected that when the East Coast Railway is completed the sales will grow largely. The gross salt revenue was £1,676,000, or £32,000 more than in the previous year, a result which was due to increased clearances from bond. The operations of the Salt Department have been extended from Orissa to the 24 Parganas. The number of cases in which contraband salt was confiscated was 981, as compared with 1,047 in the previous year. There were in all 966 prosecutions for salt offences; and 19 persons, out of a total of 991 accused people, were acquitted. In the previous year there were 904 prosecutions.

Madras.

There were in Madras available for the manufacture of salt by solar evaporation 25 Government and 46 other factories; but of these, 15 Government and four other factories were not at work during the year 1898–99, owing to the existence of large stocks. The amount of salt produced was 6,856,537 maunds, or over 4 per cent. more than in 1897–98, but the figures of both years were considerably below those of any recent year; of this amount, 5,715,792 maunds were manufactured in private factories. An improved method of manufacture was in operation at three factories owned by the Oriental Salt Company. The average wholesale price of "excise" (*i.e.*, private factories) salt was 3 annas 3½ pies per maund against 3 annas 5½ pies in 1897–98; the price of Government salt was also in most cases lower than in the previous year. The average retail price per maund, duty paid, varied from Rs. 3. 1. 2. to Rs. 4. 2. 10. in different centres. Excluding the salt used for fish-curing, the total consumption of the Presidency, apart from certain districts and Native States, during the last three years, was as follows:—

	1896–97.	1897–98.	1898–99.
Issues of Government, excise, and imported salt in maunds.	8,023,263	8,379,313	8,378,535
Imports from Bombay by railway - -	495,373	639,887	599,324
	8,518,636	9,019,200	8,977,859
Deduct,—Salt consumed in three northern and two west coast districts, in Mysore, Coorg, and various Native States, or exported from the Presidency.	3,273,384	3,635,004	3,649,389
	5,245,252	5,384,196	5,328,470
	Lbs.	Lbs.	Lbs.
On an estimate of the population, allowing an increase of 10 per mille per annum, the rate of consumption per head in the rest of Madras.	$16\frac{1}{6}$	$16\frac{1}{3}$	$16\frac{1}{10}$
On an estimate of the population, allowing an increase of 10 per mille per annum, the rate of consumption per head in the Tamil districts south of Madras, containing a population of about 19½ millions.	$17\frac{1}{4}$	$16\frac{3}{4}$	17

Taking the population of the last census, for the purpose of comparison with other provinces, the rate of consumption in Madras may be put as $17\frac{1}{2}$ lbs. in 1897–98, and $17\frac{1}{3}$ lbs. in 1898–99.

The stocks of Government and excise salt in hand at the end of the year on the east coast was sufficient to last for $17\frac{1}{2}$ months, compared with a supply of 21 months in hand at the end of 1897–98. The gross revenue from Madras

salt was £1,332,000, as compared with £1,152,000 in the preceding year. The increase was chiefly due to larger sales of Government salt at Ganjam and Madras, owing to reduction of price. During the year '1898–99 there were 129 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity fish brought to be cured was 38,600 tons, or 4,700 tons less than in the previous year. The cost of the yards to the Treasury was more than covered by the reduced price (6⅔ to 10 annas per maund) realised for salt. Prosecutions under the salt laws were, as usual, numerous in comparison with other provinces; 10,451 persons were charged with salt offences, of whom 1,752 were released by departmental officers with a warning, and 8,556 were sent for trial. More than half of these were contributed by nine circles in the southern portion of the Presidency. SALT.

The salt supply of Bombay comes from the Government salt works (Baragra salt) on the Runn of Cutch, from sea-salt works on the coast, and by importation. The sea-salt works numbered 442, of which one belongs to the Government; the imports of salt come chiefly from Goa. The following table shows the issues of salt from each source for the last two years:– Bombay.

	1897-98.		1898-99.	
	Total Issues.	For Local Consumption.	Total Issues.	For Local Consumption.
	Maunds.	Maunds.	Maunds.	Maunds.
Baragra salt - - -	1,799,338	498,082	1,937,951	542,071
Sea salt - - - -	7,293,866	2,613,235	7,385,794	2,465,444
Imported salt - - -	305,067	254,941	267,837	230,392
TOTAL - - -	9,398,271	3,366,258	9,591,582	3,237,907

The consumption in the whole Presidency was at the rate of 11·66 lbs. per head of the population given in the last census return, and 9·55 lbs. per head in Gujarat, compared with 12·13 lbs. and 8·97 lbs. (revised figures) in 1897–98. The low average in the rich tract of Gujarat is forming the subject of special inquiry; it is suspected that it is partly due to smuggling. The bulk of the Baragra salt is exported to the North-West Provinces, Central Provinces, and Central India; while the Madras Presidency, Hyderabad, Calcutta, and the Central Provinces take large amounts of sea salt. The cost price of Baragra salt was 1¼ annas per maund, and the generally prevailing price, exclusive of duty, of sea salt was 2 annas; the average market price per maund ranged, as in the previous year, between Rs. 3, the price at Ahmedabad, and Rs. 4½ at Nasik. The gross salt revenue receipts were £1,542,000, or £59,000 above the total of the previous year. Eighteen fish-curing yards were at work, being one more than in 1897–98. The quantity of fish brought to be cured in bond was 4,035 tons, and 1,185 tons of cheap salt were issued to fish-curers; the fish-curing operations of the year were most successful.

The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and by importation. The amount passed into consumption during the year was 278,000 maunds,* The consumption per head of the population of the last census was 7·86 lbs., against 7·90 lbs. in 1897–98. The average market price of salt was Rs. 3½, which showed a slight decline. The salt receipts were £50,000, which was slightly higher than in the previous year. Sind.

	Maunds.
* From Maurypur -	236,000
„ Saran - -	14,000
„ Dilyar -	19,000
Imported - -	9,000

The amount of foreign salt which paid duty in Burmese ports during 1898 was 1,238,283 maunds, or 41,913 more than in the previous year. This comes almost entirely from England and Germany, and pays a duty of R. 1 per maund. The excise duty on locally manufactured salt is raised by a fee on Burma.

SALT.

vessels used for boiling brine, which was enhanced at the beginning of the year. The result was a decline in the estimated output from 620,060 maunds in 1897 to 496,100 in 1898, although it is believed that the present rates, which vary in different districts but are generally equal to less than 8 annas per maund, are not too heavy. The imports of salted fish also fell from 350,794 to 296,493 maunds. The amount of licit salt available for consumption was, therefore, considerably reduced. Prices were slightly lower; the retail price of foreign salt at Rangoon, which governs the price throughout Burma, was 28½ instead of 29 annas per maund; the price in inland markets varies, but was generally over Rs. 2. The price of local salt varied very widely, but was generally below that of the imported article. The net amount of licit salt available for consumption, per head of population of the last census, was 19 lbs. compared with 19⅔ in 1897; it is thought likely that some impetus was given to the illicit production by the higher rates levied on local salt. It was stated in 1897 that illicit manufacture of salt practically did not exist in Burma; but 78 cases were detected in the year 1898.

EXCISE.

EXCISE. General.

The excise revenue of India is raised partly from the following sources:—(1) Monopolies for the sale of liquors and intoxicating drugs, over defined areas; (2) Still-head duty on all spirits manufactured at distilleries; (3) Licenses for the working of stills at specified places; (4) Licenses for the sale of various kinds of liquor.* Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in India, is not subjected to any duty; tea and coffee, which are grown largely for Indian consumption and for exportation, are also free from all duties. The excise duty on cotton yarns of counts above 20*s.* is dealt with under the heading of "Customs." Over almost the whole of Bombay and the Punjab, over the populous parts of Madras, the North-Western Provinces, Oudh, and Burma, and over some parts of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength. The still-head duty ranges as high as five rupees per gallon of London proof spirit; if the cost of licenses be added, the total duties are in some places more than seven rupees per gallon of London proof spirit. The system of excise management followed in these tracts is called the central distillery system, and assumes different forms in different provinces; in Bengal, the North-Western Provinces, and elsewhere, the distillery is a Government establishment at which private individuals distil spirits; or sometimes, as in the Madras private distillery system, there is competition between the owners of private establishments manufacturing their own liquor. Efforts are continually made to adapt the systems of excise as far as possible to the conditions of each province. Over a large part of Bengal, and over most of the Central Provinces, over the whole of Assam and about half of Berar, and over limited tracts in other provinces, revenue is levied on Indian spirits by leasing the spirit monopoly to the highest bidder, which is called the farming system; or by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have in past years declared their intention to restrict the farming and out-still systems as narrowly as possible. The difficulties are that in sparsely-peopled forest tracts the materials for illicit distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept in such places; and illicit practices prevail, to the consequent demoralisation of the people, if weak liquor cannot be obtained in some lawful way. Licensed out-stills are sometimes the only means of meeting the requirements of such exceptional tracts.

* A customs duty is also levied on all imported spirits, wines and beer. The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer.

The following table gives the excise revenue of 1898-99 for each province under the different heads, as shown in the Finance and Revenue Accounts :— EXCISE.

	India, General.	Bengal.	North-West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Spirits, Fermented Liquors and Drugs, viz. :—	£	£	£	£	£	£	£	£	£	£
Foreign liquors, &c. -	4,621	71,332	37,393	21,403	73,642	471	1,880	21,969	15,901	248,612
Country spirits - -	64,238	406,779	228,196	92,766	62,287	80,092	41,897	367,152	556,488	1,899,895
Toddy - - -	1,476	68,488	6,862	-	27,352	1,297	13	459,824	83,107	648,419
Opium and its preparations.	1,537	41,798	9,828	25,436	92,328	13,484	21,232	25,586	1,750	232,979
Other drugs - - -	2,046	93,222	63,607	21,282	-	5,585	13,019	3,573	28,674	231,008
Duty on opium consumed in India.	762	118,249	32,908	10,496	49,323	21,339	102,002	24,616	70,214	429,909
Acreage on land cultivated with the poppy.	-	-	-	1,396	-	-	-	-	-	1,396
Duty on ganja - - -	-	94,196	-	-	-	6,412	12,173	4,380	346	117,507
Fines, confiscations, miscellaneous.	548	1,072	196	435	2,722	1,051	37	4,738	6,123	16,912
TOTAL Revenue - -	75,228	895,136	378,990	173,214	307,654	129,731	192,253	911,838	762,603	3,826,637
Charges - - - - -	1,802	45,301	3,730	3,633	14,709	3,157	416	66,139	23,120	162,010
Net Revenue, 1898-99 -	73,426	849,832	375,260	169,581	292,945	126,574	191,837	845,699	739,483	3,644,627
Net Revenue, 1897-98	64,102	804,918	297,132	152,862	268,233	112,850	184,213	908,511	706,570	3,459,461

The sum of £462,000 was yielded by import duties on liquors and spirits imported into India during the year 1898-99, and thus the total drink and drugs revenue of India amounts to about 5 annas a head on the whole population of British India. There has been a considerable increase in the excise revenue during the past 30 years; but this increase, though in part due to enhanced consumption of liquors caused by the growth of population and the general increase of earnings, is yet largely, and in some localities mainly, the result of improved excise administration, which has doubled or trebled the rates of taxation, and has, at the same time, restricted the use of illicit intoxicants. The totals of the net excise and customs revenues on liquors and drugs consumed in India during the past 24 years compare thus :—

	£		£
1874-75 - - -	1,755,000	1895-96 - - -	4,118,000
1880-81 - - -	2,343,000	1896-97 - - -	4,040,000
1883-84 - - -	2,840,000	1897-98 - - -	3,940,000
1894-95 - - -	3,965,000	1898-99 - - -	4,127,000

For the 233* millions of people who inhabit the several provinces of British India and Berar, the total number of shops licensed for the retail

* This figure is an estimate based on the results of the census of 1891, which showed a population in British India of 221,172,952.

Excise.

sale of spirits, fermented liquors, opium and drugs, is as follows, province by province:—

PROVINCE.	Number of Retail Shops licensed in 1898-99 for the Sale of					Quantity of Opium sold for Local Consumption, so far as known.
	Country Spirits made in India.	European Liquors Imported or made in India.	Toddy and Rice-Beer or other Indian Fermented Drinks.	Opium.	Narcotic or Intoxicating Drugs, other than Opium.	
						Maunds (82 *lbs. each*).
Bengal	3,262	500	14,868	1,656	3,105	2,164
North-West Provinces and Oudh.	6,029	291	4,597	1,100	3,621	1,416
Punjab	1,363	311*	35	1,550	1,306	1,379
Burma	72	447	1,094	53	None	771
Central Provinces	6,022	89	596	921	939	619
Assam	218	70	9	751	281	1,342
Madras	10,371	772	17,523	1,059	308	795
Bombay, Sind, and Aden	2,818	257	1,876	1,153	1,188	1,392
Berar	1,118	19	971	450	163	323
TOTAL 1898-99	31,273	2,756	41,569	8,693	10,911	10,201
TOTAL 1897-98	31,244	2,878	42,976	8,706	10,973	10,166

* For imported liquors only.

There are thus 95,202 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of about 2,400 of the population. In the United Kingdom, in 1898–99, there were more than 157,000 licenses for the retail sale of beer, wine and spirits, or one shop to 230 of the population. In neither computation are occasional or part-year licenses reckoned; of these latter licenses, nearly 35,000 were issued in the United Kingdom during the year, while the temporary or part-year licenses in India are under 2,000 a year.

Bengal.

In Bengal the total excise revenues of 1898–99 and the two previous years were as follows:—

Receipts from	1896-97.	1897-98.	1898-99.
	£	£	£
Country spirits	405,364	372,067	406,519
Foreign liquors and rum	47,547	47,087	41,464
Fermented local liquors, toddy, and rice-beer	96,965	92,389	98,674
Opium	155,040	154,574	160,069
Ganja, bhang, and their compounds	187,878	182,863	187,396
Miscellaneous	1,245	891	1,027
TOTAL EXCISE REVENUE	894,039	849,871	895,149
Add duties levied in the Presidency on imported liquors.	127,993	122,937	133,173
TOTAL REVENUE FROM DRINKS AND DRUGS £	1,022,032	972,808	1,028,322

The excise revenue shows a distinct recovery after the famine-affected year 1897–98; it was slightly in excess of the figures for 1896–97, and was the highest on record. Of the total, £524,425 was collected in the shape of license fees. Excise.

The out-still system is in force in the Rajshahi and Chittagong divisions, and in parts of Western Bengal, containing altogether a population of 38½ millions; the rest of the province, containing over 32 millions, is under the central distillery system. No change was made in this respect during the year. The number of central distilleries was 30, as in the previous year, in addition to 33 depôts; that of out-stills rose from 2,018 to 2,042. The consumption of country spirits in the out-still area cannot be accurately stated, but is estimated at 1,245,000 gallons at London-proof; the amount of imported spirits consumed in the province cannot be stated; other figures as to consumption and sale in 1898–99 are as follows :—

	1896–97.	1897–98.	1898–99.
Issues of country spirits from central distilleries in gallons, at London proof.	478,140	442,104	530,083
Issues of spirits manufactured in India by European method.	80,898	77,979	50,053
Shops licensed for retail sale of—			
Country spirits	3,288	3,211	3,262
Rum and imported liquors	484	513	500
Pachwai, or rice-beer	1,663	1,592	1,606
Toddy (fermented)	13,301	13,233	13,262
Consumption of licit opium, in maunds	2,100	2,086	2,164
„ hemp drugs (chiefly ganja), in maunds.	6,033	5,636	5,783
Shops licensed for retail sale of opium	1,680	1,667	1,656
„ „ „ hemp drugs	3,064	3,090	3,105

The still-head duty levied on central distillery liquor ranged from Rs. 1⅞ to Rs. 5 per gallon of proof spirit. The revenue from the distillery area shows an increase of 13 per cent. over that of 1897–98; but in the out-still area revenue depended on the result of a settlement made beforehand, while the effect of famine was still strong, and the increase was therefore only 5 per cent. The incidence of excise revenue per head of population was 2⅝ annas, as compared with 2⅔ annas in the preceding year.

The revenue from toddy was £68,500, as compared with £67,600 in the previous year; in addition to the shops shown above as having been licensed to sell fermented toddy, 1,872 licenses were issued in 1898–99 for the sale of unfermented palm-tree juice. Attempts have been made to raise *tari* revenue in selected districts by imposing a tree-tax on the Madras system; in some districts the attempt has been abandoned, as being unsuited to local circumstances; in others the experiment is being continued. The number of licenses for home-brewing of rice-beer for domestic consumption rose from 7,911 to 8,655. Ganja is grown under close supervision in the Rajshahi district, and its cultivation elsewhere in the province, including the Tributary States of Orissa, is forbidden. A large amount is annually exported, the chief items in 1898–99 being, to North-Western Provinces, 350 maunds; to Assam, 548 maunds; to Nipal, 199 maunds. The crop was a small one in this year, owing to the destruction of seedlings by unfavourable weather; prices were therefore very high. There was no change in the rate of duty. Special attention was paid during the year to the prevention of smuggling opium to Chittagong and Burma, with good results. No shops are licensed for selling opium prepared for smoking after the Chinese fashion, known as *chandu*, or opium prepared for smoking after the Bengali manner, known as *madak*, and it is believed that those habits have thereby received a check.

EXCISE.

The number of arrests for offences against the excise and opium laws rose from 3,634 to 3,830, and convictions were obtained against 3,365, or 88 per cent., of the accused persons; of these, 405 persons were convicted of the offence of illicit distillation.

North-Western Provinces and Oudh.

The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1898. For the last three years the excise revenues have been :—

Gross Receipts from	1895-96.	1896-97.	1897-98.
	£.	£.	£.
Country spirits	217,587	158,895	192,085
Foreign liquors and rum	28,103	28,951	34,533
Opium	45,215	40,118	40,909
Other drugs	52,486	48,799	58,175
Toddy and miscellaneous	6,144	5,762	6,872
TOTAL £.	349,535	282,525	332,574

This is considered to be favourable from a financial point of view, as the earlier portion of the year 1897–98 was still under the shadow of the famine.

The changes in the revenue system in connection with country spirits during the year were chiefly from the farming to the out-still system. The revenue was raised as follows :—

(*a*) £152,387 under the ordinary central distillery system, which extended over 65,800 square miles, inhabited by 36¾ millions of people.

(*b*) £16,199 under the modified distillery system, which extended over 1,380 square miles, inhabited by 922,000 people.

(*c*) £16,791 under the out-still system, which extended over 33,500 square miles, inhabited by 7¼ millions of people.

(*d*) £6,709 under the farming system, which extended over 6,300 square miles, inhabited by 2 millions of people.

Thirty distilleries were at work throughout the year, one having been closed in October 1897; five bonded warehouses for spirits have been established. The rate of still-head duty charged was Rs. 2 per gallon of London proof spirits, and Rs. 1½ per gallon for spirit 25° below proof, with intermediate rates in a few districts to meet special difficulties.

The consumption of spirit under systems (*c*) and (*d*) cannot be stated, but the following figures are of interest :—

	1895-96.	1896-97.	1897-98.
Issues of country spirit from distilleries, public and private, in gallons, at London proof.	912,000	661,000	885,000
Consumption of rum from the Rosa distillery	30,700	30,500	34,900
Shops licensed to retail country spirits	6,269	6,126	6,029
„ „ rum and imported spirits	273	300	291
Sales of opium, in maunds	1,532	1,356	1,416
Shops for retail sale of opium	1,103	1,112	1,100
Net import of hemp drugs (chiefly *bhang*), in maunds.	13,388	11,210	12,216
Shops for retail sale of hemp drugs	3,637	3,587	3,621
Shops for sale of toddy	4,464	4,477	4,597

The system of taxing hemp drugs by a quantitative duty in addition to license fees, which came into force in 1896–97, is reported to work satisfactorily. The amount was fixed at Rs. 6 to Rs. 9 per seer for Bengal ganja and Rs. 1¼ for ganja from other places; while the duty on charas is Rs. 2½ to Rs. 2 per seer. These rates are receiving further consideration. The Madras system of taxing toddy trees was given a further trial in the Farukhabad district. Excise.

The number of prosecutions under the Excise Act was 1,018, or nearly 50 per cent. more than, and under the Opium Laws 801, or 31 per cent. more than, in the previous year; the prosecutions for illicit distillation were 179, against 125 in 1896–97.

In the Punjab the equalisation, dating from the beginning of the year, of the still-head duty on country spirits and spirits made in India by European methods had the effect of stimulating the production of the latter in the licensed private distilleries, and checking the consumption of the more crude spirit made in the pot-stills in the central distilleries. The private distilleries produce, besides whisky and rum, a white molasses spirit which is, excepting for its greater purity, identical with the country spirit; the result will be therefore to substitute a purer and perhaps rather higher-priced spirit for the cruder form. The new rates for country spirit are:— Punjab.

	Rs.
10 per cent. under proof to London proof - - -	4
20 „ „ „ 10 per cent. under proof -	3½
30 „ „ „ 20 „ „ -	3
45 „ „ „ 30 „ „ -	2½
More than 45 per cent. under proof - - - -	2

Private distillery spirit pays Rs. 4 if of London proof, and if below this strength, at the exact percentage rate according to its actual strength.

The result of the change is shown in the decline of the issues of country spirit from 247,300 to 157,700 gallons, and the increase of the issues of private distillery spirit from 14,400 to 74,800 gallons. Three new private distilleries are being started, and three of the central distilleries, of which there were 17 in 1897–98, were, after due notice and consideration, closed.

The gross excise revenues in the last three years were raised as follows:—

Receipts from	1896–97.	1897–98.	1898–99.
	£.	£.	£.
Country spirits - - - - - -	78,185	85,213	98,929*
Imported liquors and beer - - - -	16,168	16,677	14,988
Opium - - - - - - -	37,308	38,180	37,329
Other drugs and miscellaneous - - -	14,511	16,390	21,965
TOTAL - - - £.	146,172	156,460	173,211

* In 1898-99 private distillery spirits are included under the first head, which embraces all spirits made in British India.

The increase of £16,750 in the revenue was due partly to the imposition of duty on beer supplied for the use of the troops, which brought in £9,000, and partly to the enhanced duty on *charas*, which was introduced last year, but only had its full effect in 1898–99, showing an increase of £5,000. The total of licit spirits and drugs supplied to the public, and the number of licensed shops for the past three years, are returned as follows:—

	1896-97.	1897-98.	1898-99.
Consumption of country spirits computed at London proof, in gallons.	229,649	237,481	181,485
Consumption of rum and whisky, manufactured at private distilleries.	46,697	49,965	97,688
Consumption of imported spirits - - -	78,082*	61,721	59,647

* Probably includes some wine.

Excise.

	1896–97.	1897–98.	1898–99.
Licensed retail shops for country spirits† -	1,269	1,286	1,363
Licensed retail shops for rum† and imported liquors, including hotels, refreshment rooms, and travellers' rest-houses	473	483	311
Consumption of licit opium, in maunds - -	1,471	1,499	1,379
Licensed retail shops for opium - - -	1,540	1,552	1,556
„ „ for hemp drugs - -	1,340	1,445	1,306

† From the beginning of 1898–99 all spirits made in British India were sold at the shops licensed for country spirits.

The fall in the opium revenue is accounted for by smaller receipts from the acreage duty on poppy cultivation and from the import duty; receipts from licenses for sale of opium showed a slight increase. The import duty on Malwa opium was raised from Rs. 3 to Rs. 4 per seer. The acreage under poppy cultivation in the province continues to decline, the figures reading as follows:—

1895–96, 12,741 acres; 1896–97, 9,757 acres; 1897–98, 10,412 acres; 1898–99, 6,875 acres.

The number of persons prosecuted under the liquor and drug laws rose from 376 to 389, of whom 225 persons were convicted for serious offences, such as illegally distilling or smuggling liquor, and 58 for petty offences; and the number prosecuted under the opium laws rose from 269 to 499.

Burma.

In Burma the gross excise revenue during the past three years was raised thus:—

Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Liquors imported or made in Burma by European methods.	65,378	64,331	72,485
Country spirit - - - - - - - - -	8,260	7,290	7,994
Toddy - - - - - - - - - -	26,994	25,401	26,190
Rice-beer - - - - - - - - -	35,171	40,440	52,634
Opium (after deducting prime cost of Government opium).	142,203	140,965	135,626
Fines - - - - - - - - - -	6,375	6,667	7,556
TOTAL - - - £.	284,381	285,094	302,485
Add,—Duty on imported liquors - - - -	71,845	69,680	76,574
TOTAL - - - £.	356,226	354,774	379,059

The increase was general, except under opium, and was due not only to a larger consumption of distillery liquor but also to keener competition for licenses. The excise duty on distillery spirits in Burma is Rs. 6 per gallon, which is the same as the import duty on foreign spirits, and the large increase in the output noted below seems to show that the rate is not too high; the number of distilleries at work was five, and there was one brewery producing malt liquor. Rice-beer, which is chiefly consumed in the Pegu and Irrawaddy divisions, is increasing in popularity, and the receipts from license fees, as in the previous year, show a decided rise. The right to manufacture and sell country spirit is sold by auction; the spirit is for the most part consumed in Lower Burma, the manufacture of it is free in some of the hilly tracts of Upper Burma.

It is found extremely difficult to check the illicit manufacture of country spirits; the number of illicit stills suppressed in 1897–98 was 574, and in 1898–99 it was 392. The remedy suggested is to encourage the consumption of rice-beer instead of spirits. EXCISE.

No statement can be given of the amount of country spirit made at the out-stills, or of the production of toddy or rice-beer; other figures are as follows:—

	1896-97.	1897-98.	1898-99.
Imported spirits in gallons	176,933	186,621	185,229
Distillery spirits in gallons, at London proof	50,719	35,827	59,045
Shops licensed for sale of—			
Distillery or imported liquors	430	456	447
Country spirit	74	66	72
Toddy	863	817	839
Rice-beer	239	252	255
Opium	54	52	53
Licit opium consumed, in maunds	703	752	771

From the 1st January 1894 opium could not be legally sold to or possessed by Burmans, unless they had registered themselves as consumers before the end of June 1894. Non-Burman residents are allowed to buy and possess opium under the same restrictions as before. A maximum supply of opium is fixed for each licensed shop, calculated according to the number of legitimate consumers that are likely to frequent such shop. These arrangements were being reconsidered, and it was proposed, among other things, to reopen the registers and to admit those who omitted to register themselves in 1893. The amount of licit opium consumed cannot be taken as representing the total consumption, as there is a great deal of smuggling; during the year 1898–99 no less than 103 maunds of illicit opium were seized, and in the previous year the seizures amounted to 72 maunds. The work of the Special Excise Establishment was not very satisfactory during the year, but the amount of rewards disbursed has increased considerably, and it is expected that this will cause greater activity.

The number of offences against the opium and excise laws reported in 1898–99 was 5,004 against 4,776 in 1897–98; those in connection with ganja increased in number, and the amount of hemp drugs confiscated was considerably greater.

In the Central Provinces the excise receipts of the past five years have been as follows:— Central Provinces.

Receipts from	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£.	£.	£.	£.	£.
Country spirits	115,649	99,196	88,155	68,716	76,558
Opium	65,298	61,282	51,061	46,788	48,072
Ganja	18,055	16,334	12,648	11,011	11,647
Toddy	1,493	1,374	1,397	1,415	1,253
Miscellaneous, including foreign liquors.	1,937	2,294	1,829	1,797	2,075
TOTAL £.	202,432	180,480	155,090	129,727	139,605

Excise.

The greater part of the country is supplied with spirits from out-stills, from which nearly half of the country spirit revenue is derived; but the number of these is being steadily decreased in pursuance of the policy of substituting the central distillery system in tracts where it is considered possible to do so. The number of central distilleries was not increased during the year. In two districts, Nagpur and Nimar, the modified bonded warehouse system described in last year's Statement was for a second year on its trial, and is reported to have worked fairly well. Under the out-still system the revenue is raised by license fees, under the central distillery system by license fees and by a duty varying between one and four annas per seer, on the raw material (*mohwa* flower); under the new system it is raised by license fees and a duty on liquor consumed, fixed at Rs. 3 per gallon of spirit 10 degrees below London proof and Rs. 1¼ per gallon 50 degrees under proof.

Particulars of consumption and sale, so far as available, are as follows:—

	1896-97.	1897-98.	1898-99.
Issues of country spirit from central distilleries, in gallons at London proof	153,000	150,000	166,000
Shahjehanpur rum imported	6,709	7,933	7,161
Number of distilleries supplying bonded warehouses	5	4	4
" " " central distilleries	10	20	20
" " " out-stills	1,706	1,504	1,496
Shops holding permanent licenses for retail sale of—			
Country spirits	6,366	5,985	6,022
Imported liquors	64	90	89
Toddy	677	654	596
Opium	920	916	921
Hemp drugs	998	978	986
Total issues of licit opium, in maunds	633	597	619
" " ganja "	788	750	805

Opium and ganja are supplied by the Government for the use of Feudatory States at fixed rates, and 125 maunds and 98 maunds respectively must on this account be deducted from the totals of 1898–99 given above, in order to arrive at the consumption in the province. The excise revenue from all sources falls at the rate of about 3 annas per head of the population.

The number of prosecutions under the excise laws rose from 300 to 561, and from 150 to 222 under the opium laws. The number of licenses for the cultivation of ganja rose from 95 to 181, and the area cultivated was 265 acres, or 133 acres more than in 1897–98.

Assam.

The excise demand of Assam for the year 1898–99 and previous years was distributed thus:—

Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Country spirits	36,785	35,168	41,895
Imported liquors and rum	1,736	1,602	1,837
Opium and its compounds	124,067	122,393	122,532
Ganja and its compounds	23,524	23,740	25,447
Miscellaneous, including toddy, &c.	150	189	118
TOTAL £.	186,262	183,092	191,829

The fall in revenue of the previous year was more than compensated by the large increase of 1898-99, occurring chiefly under country spirits. These are for the most part consumed by the immigrant population, which has grown rapidly during the past few years. Owing to the sparse population of the province the central distillery system has not been introduced, and the out-still system everywhere prevails. Under this system, the sites of shops are fixed; the right to have one still, and to sell spirits, at each shop, is sold annually by auction. Much of the liquor is weak, being sold at from six annas to one rupee per quart bottle, according to strength. The indigenous population consume chiefly opium and ganja, the use of the latter being especially prevalent in the two Surma Valley districts; and there is no demand for the other hemp drugs, known as *charas* and *bhang*. The figures of sale and consumption, so far as they can be given, are as follows:— Excise.

	1896-97.	1897-98.	1898-99.
Estimated consumption of country spirits, in gallons at London proof.	Figures not available.	Figures not available.	367,351
Consumption of licit opium, in maunds -	1,330	1,332	1,342
„ „ ganja „ -	634	623	618
Shops licensed for retail sale of—			
Country spirits - - - - - -	218	217	218
Opium - - - - - -	804	758	751
Ganja - - - - - -	276	272	281

The amount of rum imported from the North-Western Provinces or from Bengal was 2,929 gallons; no rum was manufactured in the province. Licenses for the sale of rum and foreign spirits fell from 73 to 70 in number. There is a very limited consumption of toddy and rice-beer, which does not require notice.

The number of prosecutions under the excise and opium laws rose from 267 to 486, and convictions were obtained against 79 per cent. of the accused persons. The prosecutions included one important opium smuggling case, and 10 cases of illegal possession and sale of opium prepared for smoking; the large increase occurred chiefly under the heads of illegal manufacture, sale, or possession of country spirits or excise opium.

The excise revenue of Madras during the last three years was raised thus:— Madras.

Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Country spirits - - - - - -	436,011	406,709	367,699
Toddy - - - - - - - -	468,308	479,082	462,711
Foreign liquors and miscellaneous - -	32,448	32,768	29,732
Opium and other drugs - - - -	55,193	52,444	55,143
TOTAL - - - £.	991,960	971,003	915,285
Add,—Customs duties on imported liquors -	73,368	73,283	64,445
TOTAL REVENUE FROM DRINK AND DRUGS - - £.	1,065,328	1,044,286	979,730

The total excise revenue showed a decrease of £55,719, and was 5·7 per cent. less than in the previous year; the cause is apparently decrease of consumption owing to an unfavourable season.

Excise.

The central distillery system is in force over the greater part of Madras, and the number of distilleries was 12 during the year, compared with 14 in 1897–98. In the Ganjam and Vizagapatam, and most of the Kistna and Malabar, and part of the South Canara districts the right of manufacture and supply at a fixed price to retail vendors was sold to a contractor. In the Godavari district and in other small tracts, containing a population of about 2¼ millions, non-distillery systems are in force, but these areas are being restricted. Under these "renting" systems the right to retail spirit was sold, either with or apart from the manufacturing right, by areas or by separate shops. Still-head duty is levied on all spirits issued from contract or other distilleries; the rate varies, but generally speaking is Rs. 4⅜ per gallon at proof strength. Much of the spirit is made from sugar at large distilleries worked with modern appliances. Over nearly the whole of the Presidency a tree tax, ranging from one rupee to six rupees a year, is imposed on all palm trees tapped for toddy, while the shops for retail sale of toddy pay a license fee, or outside the tree-tax area are sold by auction to the highest bidder. The amount of toddy consumed in the Presidency cannot be stated; other figures of consumption and sale are as follows:—

	1896-97.	1897-98.	1898-99.
Consumption of country spirits, in gallons at London proof	1,204,444	1,112,675	949,697
„ imported spirits, in gallons	204,231	188,585	171,133
„ opium, in maunds	940	901	795
„ hemp drugs	984	792	285
Shops licensed for retail sale of—			
Country spirits	10,640	10,387	10,371
Toddy	18,415	17,602	17,523
Opium	1,129	1,067	1,059
Hemp drugs	270	272	308

The most notable feature of these figures is the continued decline in amount of consumption and in number of shops, with the exception of ganja shops. In August 1897 the possession or transport of ganja was placed under restriction and unlicensed cultivation was prohibited, and in August 1898 an excise duty was imposed as follows: ganja Rs. 4 per seer, bhang 8 annas, charas Rs. 6; to this is ascribed the decrease in consumption. No opium is cultivated in Madras, the supply being procured from Indore; the right to retail it is farmed. The number of persons sent for trial for offences against the excise laws was 21,360, against 21,743 in the previous year, and among these, 89 per cent. of convictions were obtained. Nearly half the excise cases reported during the year were for illicit manufacture of toddy. There were 45 prosecutions for smuggling intoxicating drugs, compared with three in 1897–98.

Bombay.

The central distillery system obtains through practically the whole of the Bombay Presidency, but it differs from the similar system of Madras. In the most prevalent form in Bombay, the monopolies of manufacture and sale of country spirit over an excise area are sold together to one contractor, and most of the revenue is obtained from still-head duties; in the Madras distillery system the monopoly of manufacture is separated from that of retail vend, and much of the revenue is obtained from the auction sale of shop licenses. In the Bombay Presidency spirits are distilled from fermented mhowra (or mhowa) flower and from fermented toddy, or juice drawn from incisions in the trunk of three or four species of palms. In several of the minor Native States the British system of excise management has been adopted; in some others the chiefs have engaged to manage their excise affairs so as to avoid competition

with British excise arrangements. The general fiscal results of the excise management in Bombay, Sind, and Aden during the last three years were:— Excise.

Gross Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Locally-made liquors, including toddy	647,850	625,061	616,720
Foreign and Indo-European liquors	14,757	10,900	11,242
Opium	100,337	83,867	73,182
Intoxicating drugs	25,767	32,062	28,535
Miscellaneous items	7,369	6,439	6,276
TOTAL EXCISE REVENUE	796,070	757,829	735,955
Import duties on potable liquors for Bombay and Sind	117,483	121,000	189,319
TOTAL REVENUE FROM DRINK AND DRUGS £.	913,553	878,829	925,274

The rate of still-head duty ranges from Rs. 5⅓ to Rs. 1 per gallon of London proof spirit; and the average over the greater part of the presidency is about Rs. 3 per gallon. The incidence of excise revenue, excluding opium, per head of the population was 8½ annas in Bombay, and 6 annas in Sind. The details of consumption and sale in the Presidency were as follows:—

	1896-97.	1897-98.	1898-99.
Country spirit, in gallons at London proof	2,129,000	2,193,000	2,216,000
Shops licensed for sale of country spirit	2,810	2,823	2,818
„ „ toddy	1,313	1,294	1,876
„ „ opium	1,147	1,148	1,153
„ „ ganja	1,223	1,195	1,188
Licit consumption of opium, in maunds	1,534	1,469	1,392
„ „ hemp drugs, in maunds	6,881	6,740	4,775

In Berar the gross excise revenue of the last three years has been as follows:— Berar.

	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Country spirit and toddy	63,152	54,717	62,075
Foreign liquors	148	90	164
Miscellaneous	684	1,335	1,264
Opium	22,404	21,565	24,122
Ganja	1,455	1,520	1,880
TOTAL £.	87,843	79,227	89,505

The increase, as compared with 1897-98, is due to larger arrear collections and to greater success in collecting amounts due for the year; the demand on account of the year was rather less than in 1897-98. In 13 subdivisions, out of the 22 of which Berar is composed, the Bombay central distilling system was in force during the year, with a fixed price for spirits and a minimum guarantee. Under this system the wholesale and retail rights alike were sold to a contractor. From the end of the year a change was to come into opera-

EXCISE.

tion, by which the Madras system is substituted, under which the right of retail vend is separated from that of manufacture and supply. The distillery area comprised the Ellichpur, Amraoti, and Akola districts and part of the Buldana district; the rest of Berar was supplied by out-stills. The considerable increase in receipts from country liquor was due to recovery of arrears, the consumption of distillery spirits having fallen, and the still-head duty remaining the same.

During the year new rules under the hemp drugs law came into force, by which a duty of Rs. 3 a seer was imposed on ganja, and R. 1 on bhang. These have resulted in a considerable decrease in the consumption of ganja in the year under report. New opium rules have been made, and will take effect during the year 1899. Figures relating to sale and consumption are given below:—

	1896–97.	1897–98.	1898–99.
Consumption of distillery spirit, in gallons at London proof.	125,700	166,300	147,800
Consumption of opium, in maunds	337	307	323
„ „ ganja „	531	595	119
Shops licensed for retail sale of—			
Country spirits	1,105	1,141	1,118
Toddy	971	971	971
Opium	471	461	450
Hemp drugs	138	127	163

Under the excise, hemp drugs, and opium laws, 220 convictions were obtained, which is the same number as in the previous year.

STAMPS.

STAMPS.

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts, and under Act I. of 1879 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the stamps receipts, province by province, for the year 1898–99:—

	India, General.	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Sale of court fee stamps	17,494	852,507	378,790	186,594	70,207	73,733	47,789	366,343	236,102	2,229,559
Sale of commercial and other stamps.	8,210	297,993	113,024	94,087	45,579	29,055	16,462	178,595	125,410	908,415
Fines and miscellaneous	159	8,239	2,669	4,219	1,923	241	456	6,182	36,371	60,459
TOTAL Stamp Revenue of 1898–99	25,863	1,158,739	494,483	284,900	117,709	103,029	64,707	551,120	397,883	3,198,433
TOTAL of 1897–98	33,006	1,183,961	488,131	293,564	113,404	106,595	58,034	561,351	386,649	3,224,695

The refunds of the year were £36,760, and the charges of collection came to £98,500. The increase in revenue, which had varied during the four preceding years from 1 to 2 per cent., was checked in this year, and the receipts were nearly 1 per cent. lower than in 1897–98. This decrease was confined to commercial and other stamps, the receipts for which fell off considerably in Bengal, and to a greater or less degree in all provinces with the exception of Bombay. STAMPS.

CUSTOMS.

Import duties, which had been abolished in India in 1882, and were reimposed in 1894, amount, generally speaking, to 5 per cent. of the value of the goods. The chief, though not the only, exceptions are railway material and industrial machinery, food grains, raw materials such as coal, jute, or wool, and gold and unset precious stones, which are all admitted free of duty; petroleum, which pays one anna per gallon, and iron and steel, on which an import duty of 1 per cent. is levied. For a time cotton goods were exempted, but in December 1894 a five per cent. duty was imposed on imported cotton goods and yarns; while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India. A duty is levied on exported rice and rice-flour at the rate of three annas per maund of unhusked rice. CUSTOMS.

The appended table shows the net customs revenue for five years, namely, 1894-95, during which the new tariff was in force, with the addition of the 5 per cent. duty on cotton goods from the 27th December; 1895-96, during which the tariff remained as at the end of the previous year, until the reduction of the cotton duties in February 1896; and the three subsequent years during the whole of which the tariff remained unchanged, the duty on woven cotton goods being 3½ per cent., and cotton yarns being on the free list:—

	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
Sea Customs, import duty:	£.	£.	£.	£.	£.
Arms and ammunition	10,126	11,403	13,113	11,865	9,343
Liquors	406,355	440,669	437,874	439,826	462,020
Petroleum and other oils	213,118	270,782	284,157	369,583	323,492
Cotton manufactures	256,631	776,483	598,788	522,845	558,043
Silver bullion and coin	230,557	231,859	214,650	285,733	188,914
Other metals	135,077	168,641	131,220	145,889	129,851
Other articles	630,450	686,725	633,319	669,272	678,525
Export duty on rice	594,018	609,581	491,513	472,857	658,026
Miscellaneous	6,694	1,770	7,317	7,344	8,561
TOTAL Sea Customs	2,483,026	3,197,913	2,811,951	2,925,214	3,016,774

CUSTOMS.

	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£.	£.	£.	£.	£.
Land Customs	15,884	13,397	16,766	20,032	13,445
Excise duty on cotton manufactures	6,897	40,632	72,773	75,930	90,208
Miscellaneous (including warehouse and wharf rents)	10,773	18,672	13,293	15,539	18,377
TOTAL Customs Revenue - £.	2,516,580	3,270,614	2,914,783	3,036,715	3,138,804

An Act imposing a duty on imports of bounty-fed sugar equivalent to the amount of the bounty received came into force on the 20th March 1899, but it had no appreciable effect on the receipts of the financial year 1898–99. These receipts showed a considerable increase over those of 1897–98, in spite of the falling off under petroleum; they are larger than those of any year except 1895–96, when an abnormal importation of cotton manufactures occurred.

Regarding the working of the excise duties on cotton goods, complete report is available for the Bombay Presidency, where 54 cotton factories produced excisable woven goods, including three hosiery factories, while 67 factories produced yarn only. The total output of the cotton mills in the British districts of Bombay for 1898-99 was 368 million lbs. of yarn and 82⅓ million lbs. of woven goods, these figures showing an increase of 14 per cent. and 12½ per cent. respectively as compared with the output of 1897–98. The excise revenue realised on cotton goods in Bombay was £75,000, as compared with £64,000 in the previous year. The loss of revenue in Bombay attributable to plague is estimated at about £6,700, which is considerably less than in the preceding year. Production of cotton goods has partially recovered from the effects of the plague. Inspections were made of mills from time to time to secure correct return of goods; millowners gave every facility to inspecting officers; and the excise duty was collected without difficulty. The only mills in Native States, that might compete with mills in British territory, are situated in Bhaunagar and Baroda. But in both of these States an excise duty is levied on cotton goods.

PROVINCIAL RATES.

PROVINCIAL RATES.

Provincial rates are levied for the most part on the land. They are imposed to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. In the temporarily settled provinces the rates take the form of a percentage on the land revenue, and the revenue payers and tenants have to pay that percentage in addition to the land revenue. In Bengal the cesses are levied by a rate upon the rental, and are payable partly by landlord and partly by tenant. The net receipts under this head, after deduction of the small establishment charges, were £2,610,000 in 1898–99, as against £2,444,000 in the preceding year. In Bengal about half of the rates belongs to the Provincial Government; in the North-Western Provinces nearly one-quarter is similarly credited; in other provinces the whole, or almost the whole, of the income from provincial rates is spent on local objects by local bodies. The provincial rates increase with the land revenue, and in Bengal the road cess may be increased by votes of the district boards within the legal maximum, or by alteration in the periodical valuations of the rental. The provincial rates are, for the most part, collected punctually with the land revenue and by the same agency.

The following is a table of the rates and cesses collected during the year:— PROVINCIAL RATES.

	India, General.	Bengal.	Assam.	North-Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma.	Madras.	Bombay.	TOTAL.
REVENUE.										
District Local Fund:—	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Cess on Land for expenditure on Roads, Schools, Hospitals, and general purposes.	1,390	300,532	43,882	404,335	155,109	31,345	86,311	371,920	190,323	1,585,147
Provincial:										
Cess on Land for expenditure on Roads, Schools, &c.	—	300,477	—	—	—	263	—	—	—	300,740
Cess on Land for Famine Assurance, Canals, and Railways.	—	—	—	91,640	40,758	12,484	—	—	—	144,882
Cess on Land for District Post - -	—	25,178	—	—	7,711	3,395	—	—	—	36,215
Cess on Land for Village Service and Patwaries.	2,196	—	—	178,083	94,637	36,176	—	138,487	30,887	480,466
Assessment on Wards' Estates for Establishment Charges.	—	13,514	—	—	1,388	—	—	—	—	14,902
Miscellaneous - - - - - -	4,888	—	—	43,471	408	—	—	3,644	—	52,410
TOTAL Receipts - - -	8,474	639,701	43,882	717,529	300,011	83,593	86,311	514,051	221,210	2,614,762
Refunds and charges of collection - -	—	2,357	10	410	260	296	56	991	709	5,099
Net Receipts, 1898-99 - - -	8,474	636,344	43,872	717,119	299,751	83,297	86,255	513,060	220,501	2,609,663
Net Receipts, 1897-98 - - -	7,485	599,363	42,799	619,619	295,078	64,378	79,643	525,759	209,229	2,443,353

INCOME TAX.

There was no change in the income tax law (Act II. of 1886) during the year, or in the rate at which the tax was levied. The principal provisions of the Act are that incomes derived from salaries, pensions, and interest on securities, if amounting to Rs. 2,000 per annum, should pay five pie in the rupee (2·6 per cent.), and if less than Rs. 2,000, four pie in the rupee (about 2 per cent.); that companies should pay five pie in the rupee on their net profits; and that income derived from other sources should pay according to a graded scale from Rs. 10 on Rs. 500 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pie in the rupee. All incomes of less than Rs. 500 a year are exempted, and the tax is not levied on profits or incomes derived from agriculture (which are otherwise taxed under legislation imposed in 1877-78), or on military salaries of less than Rs. 500 a month. INCOME TAX. General.

The receipts and charges on account of income tax in each province were as follows:— Provincial details.

	Gross Collections.	Refunds.	Net Receipts.	Charges for Assessment and Collection.
	£.	£.	£.	£.
India, General - - - - - -	96,939	616	96,323	65
Bengal - - - - - - - -	345,052	1,541	343,511	12,799
North-Western Provinces and Oudh -	164,635	1,766	162,869	222
Punjab - - - - - - - -	101,000	474	100,526	775
Burma - - - - - - - -	70,096	339	69,757	2,369
Central Provinces - - - -	32,075	170	31,905	62
Assam - - - - - - - -	22,374	30	22,344	130
Madras - - - - - - - -	185,938	1,285	184,653	1,929
Bombay - - - - - - - -	263,351	1,220	262,131	3,524
TOTAL, 1898-99 - - -	1,281,460	7,441	1,274,019	21,875
TOTAL, 1897-98 - - -	1,263,643	9,488	1,254,155	21,519

INCOME TAX.

Bengal.

In Bengal the collections in 1898–99 amounted to £339,000, compared with £330,000 in the previous year. Setting aside £44,300 recovered from Government salaries and interest on Government securities, Calcutta contributed £146,000, which was 3 per cent. more than in 1897–98. The increase under Part IV. was small, and in Calcutta there was a slight decrease; the receipts were adversely affected in the neighbourhood of Calcutta by the plague scare and by a decline in the sugar manufacturing industry. More than half the assessees had incomes between Rs. 500 and Rs. 750 per annum, and nearly 13 per cent. of the receipts were contributed by this class. The total number of objections against 115,643 assessments was 10,890, as compared with 11,036 in the previous year; 33·8 per cent. of the objectors were more or less successful, as against 33·3 per cent. in 1897–98; and the final demand was 2·4 per cent. below the original assessments.

The proportion of persons assessed to the total population of Bengal was 1 to 625, and the incidence of the tax was Rs. 44½ on each assessee. The number of distress warrants issued was 5,725, and property was sold in 324 cases.

North-Western Provinces and Oudh.

In the North-Western Provinces and Oudh the receipts for the year were £160,000, about the same as in 1897–98. Of this amount £31,000 accrued under Part I., and £119,500 under Part IV. The final number of assessees in Part IV. was 64,174, objections having been sustained against 7¼ per cent. of the original assessments, resulting in a reduction of the demand by 5 per cent. The system of enlisting the aid of non-official assessors was given an extensive trial, and it has proved to be a valuable aid in assessment, especially in the direction of fair distribution, as the opinion of the assessors as to the comparative wealth of their neighbours is more to be trusted than their statement of the actual figures of the incomes. One person was assessed in every 689 of the population, and the average assessment per assessee was Rs. 34. Assessees possessing an income of less than Rs. 750 per annum were 43 per cent. of the whole, and paid 14 per cent. of the amount levied.

Punjab.

The total receipts in the Punjab were £91,200, showing a slight decrease compared with the receipts of the previous year, mainly under Part IV. It is reported that in the previous year speculative dealings in grain had abnormally swollen the incomes which were assessed, and that the cessation of these transactions at the end of the famine accounts for smaller assessments in 1898–99, in spite of the increase of general prosperity. Objections were filed against 28 per cent., and were more or less successful in the case of 10 per cent. of the original assessments under Part IV.; the final demand was 6·7 per cent. less than the original demand, compared with 8·3 per cent. in the previous year. 18 per cent. of the total was paid by assessees having an income less than Rs. 750 per annum.

Burma.

In Burma the Act was applied to four fresh villages during the year, and to officers of Government, and of the Burma Railways Company in the Shan States. The net collections rose from £60,000 to £67,000. Successful appeals under Part IV. reduced the original assessment by nearly 15 per cent.; in 1897–98 the reduction was over 20 per cent. The Act is reported to have been administered with greater care during the year; but the increased receipts are to some extent due to the inclusion for the first time of deductions made by the Burma Railways Company from their employés' salaries. In Rangoon town 4,353 persons were originally assessed for a total of £19,500; but this was reduced by £2,800 by successful objections.

Assam.

In Assam the yield of the tax was higher than in any previous year, and 70 per cent. above the yield in 1886–87. The chief increase of the year occurred in Part IV., under which 13 per cent. more was realised than in 1897–98. The largest item was still the tax on salaries paid by companies, which constituted over 43 per cent. of the whole yield. The number of objections was 1,136 against 5,842 assessments; 410 objections were successful in whole or in part. The number of processes for the realisation of arrears was 494 below that of the previous year; and in 33 cases the property of defaulters was sold for arrears, against 34 in 1897–98.

The final assessment in Madras amounted to £171,500, showing an advance of 3 per cent. above the figures of 1897-98; under Part IV. one in every 389 of the population was taxed, the average amount per taxpayer being Rs. 29, and the amount collected was £127,000, compared with £118,500 in 1897-98. Against 72,818 assessments under Part IV. 27,531 objections were preferred, of which 22·7 per cent. were wholly or partly successful; and the final demand was 6 per cent. below the original assessment. In 42,839 cases notices had to be issued against defaulters, and in 573 cases property was sold on account of arrears. INCOME TAX. Madras.

In the city of Bombay, where nearly half the income tax of the Presidency is paid, the receipts on account of the year were £118,500 or 4 per cent. lower than in 1897-98, owing to the depression in the mill industry caused by the plague; the average incidence on each taxpayer in the city fell from Rs. 74 to Rs. 65, there having been a rise in the number of assessable salaries, chiefly in the lower classes. The total receipts, including arrears, throughout the Presidency were £256,600, or slightly more than in the previous year, the final demand having been about the same as in that year. Bombay.

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

SURVEYS.

THE work of "The Survey of India" is divided under five heads, namely:—

1. Trigonometrical Survey.
2. Topographical and Forest Survey.
3. Cadastral Survey.
4. Special Surveys and Explorations.
5. Map Production.

The account given below of progress under heads one, two, four, and five relates to the work of the season 1897–98.

The field operations of the year were carried on by two double and 17 ordinary parties. Of these, one party and one detachment were employed on trigonometrical surveys; seven parties on topographical surveys; one double and two ordinary parties on forest surveys; three parties on cadastral surveys; one double and one ordinary party on traverse surveys; and three parties on scientific operations. The operations of the Forest Survey Branch were continued in addition to the above.

Trigonometrical.

The party (No. 24) engaged on trigonometrical work in Baluchistan was attacked shortly after beginning work by Mekran insurgents, and was in consequence withdrawn. The work laid out in advance for the year comprised an area of 1,400 square miles, but final observations were only taken at four stations, and no triangulation was completed. A detachment of No. 25 party was employed in the Khasia and Garo hills in Assam, to ascertain what displacement, vertical or horizontal, had been caused by the earthquake of June 1897. Observations taken at 13 stations, over an area of 1,020 square miles, gave reason to suppose that the whole area had been displaced; the amount of displacement, as compared with unaffected areas, could not, therefore, be determined, but it appears to average, horizontally, about seven feet, and vertically to vary between a subsidence of 4·3 feet and an upheaval of 24 feet.

Topographical.

The parties engaged on topographical work accomplished in all 15,109 square miles of topographical survey, against 14,460 in the preceding year. Parties Nos. 10, 11, and 21 were engaged in Upper Burma, and the aggregate area completed by them amounted to 7,282 square miles on the 1-inch scale, and 1,752 square miles on the $\frac{1}{4}$-inch scale, while 8,871 square miles were triangulated in advance. The Shan States country, in which these three parties were at work, is hilly and covered for the most part with forest, and the climate is unhealthy, so that the average outturn is considered very satisfactory. No. 12 party continued the survey of Sind on the 2-inch scale, and completed an area of 2,709 square miles. In addition to this, they surveyed an area of 1,477 square miles in Kalat for the Irrigation Department, on the same scale. The work of No. 15 party consisted in topographical survey of 1,857 square miles on the 1-inch scale, in the western portion of Sind, together with minor surveys. The Himalaya party, No. 18, surveyed 317 square miles on the 4-inch scale in Kangra, Kulu, and Sirmur, and 259 on the 2-inch scale in the Mandi, Suket, and Simla Hill States. Exceptional difficulties were presented by some parts of this country, and the weather was not favourable; the cost of

the 4-inch survey averaged Rs. 107½ per square mile. The observations have been tested and found to be good. The survey of the Lushai hills was begun by party No. 14. As there are no Great Trigonometrical Survey stations in these hills, a series of secondary triangles had to be made as a basis for detailed survey. Of the 170 miles over which this triangulation will have to be carried, 100 miles were covered during the year. A further area of 1,300 square miles was also triangulated in advance, but no detailed survey was completed. Surveys.

In Madras two Forest Survey parties (Nos. 9 and 19) were amalgamated, and completed detail survey on the 4-inch scale over 1,050 square miles, besides triangulation in advance over 2,331 square miles and traverse survey extending to 712 miles. The work was carried on in the North Coimbatore, Salem, South Arcot, Kurnool, and Cuddapah districts, a start being made in the latter by the triangulation of 900 square miles. In Bombay a party (No. 17) completed the following work: in the districts of North Kanara, 444 square miles of forest reserves on the 4-inch; in Thana, Nasik, and Kolaba, 204 square miles of teak forest on the 8-inch; and in Ahmednagar and Nasik, 29 square miles of babul reserves on the 16-inch scale. This was in addition to the usual amount of preliminary work, which was done by native agency. In Lower Burma, party No. 20 completed 406 square miles of detail survey on the 4-inch scale in the Pegu and Shwegyin reserves, and 118 square miles on the 2-inch scale in the unreserved forests on the Yenwe river. The Forest Survey Branch completed surveys over 1,735 square miles, chiefly on the 4-inch scale, in the Central Provinces, in the Chamba State, Punjab, and in Upper and Lower Burma; they also took in hand boundary surveys on the Nepal boundary and in Oudh. The total of forest surveys for the year amounts to 4,132 square miles, compared with 4,823 in 1896-97, a decrease due to the transfer of one party (No. 14) from forest to topographical work. Forest Survey.

The work of the cadastral and traverse survey parties is noticed below under each of the provinces where they were employed. Cadastral Survey.

Two parties (Nos. 22 and 23) resumed the determination of latitude on the group system, originated by Lieutenant Herschel, R.E. The work was done in the neighbourhood of Agra. Owing to the difficult nature of the country success was not complete, but the system is expected to prove highly valuable. The object in view is the determination of the direction and magnitude of the deviation of the plumb line in the area examined. Geodetic.

The number of new maps or sheets, and new editions, completed during the year was 319; these included 40 sheets of the Atlas of India (scale of 4 miles to the inch), and district and standard maps, especially of the Central Provinces. Map printing.

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables, were continued during the year at 13 stations, of which seven are permanent and six are temporary; during the year 1897-98 the Muscat Observatory was closed, and stations were opened at Perim and Porbandar. The tidal operations of the year are reported to have been successful. The number of Indian ports for which tide tables for 1899 have been published is 31. No levelling operations were in progress during the year, as the levelling detachment was employed, as above stated, in Assam in connection with the earthquake. Tidal and levelling operations.

The eclipse of the sun in January 1898 was observed at Dumraon by a detachment equipped with an equatorial camera, and good results were obtained. The parties which came from England to observe the eclipse were also aided by officers of the survey department. Astronomical.

A magnetic survey of India is under consideration, and steps are being taken to provide the necessary instruments and suitable observing stations. Magnetic.

In Upper Burma an area of 1,752 square miles was geographically surveyed, on the ¼-inch scale. The aggregate areas geographically surveyed during the year on the eastern and western frontiers amounted to 9,976 square miles. Officers of the department accompanied the Burma-China Boundary Commission, and the boundary north of the Taping river was successfully demarcated. Explorations.

SURVEYS.

Marine Survey.

The marine survey vessels "Investigator" and "Nancowry" began and completed a survey of the Moulmein river and approaches, and the "Nancowry" then proceeded to the Andaman Islands to continue the survey from the point to which it had been carried in 1897. The "Investigator" ran a meridian distance to the North Andamans from Rangoon, in order to test the longitude of the islands. Subsequently detailed examination was made of shoals in the neighbourhood of the Andamans, and a visit was paid to Invisible Bank.

Archæology.

The Archæological Survey of Western India toured in Kathiawar, and reported on temples at Than, Somanatha, Sejakpur, and elsewhere, including temples along the coast resembling the very old semi-classic temples of Kashmir. The expenditure on the conservation of antiquarian remains in the Bombay Presidency amounted to £530. In the North-Western Provinces attention was chiefly directed to the shrines and temples at Agra and Fatehpur Sikri, and reports were made with a view to conservation work. Some exploration was also done in the Nepal Terai. In the Punjab no archæological survey work was done during the year. In Madras in the early part of the year the survey work at Adoni in the Bellary district and at Conjeeveram was finished, and subsequently a tour was made among the temples in the Tinnevelly and Cuddapah districts. A Report was under preparation describing the ancient palaces which have been surveyed. An Archæological Department was sanctioned for Burma during the year, and work was begun in 1899 Arrangements have been made for the furtherance of archæological efforts throughout India by the formation of a fund, to be called the International Indian Exploration Fund. The proceedings of the Association connected with this fund will be managed by a Central Council, of which the President of the Royal Asiatic Society is to be chairman. The Government of India welcomed the establishment of this fund, and promised assistance to the International Association.

Meteorology.

Meteorological observations were recorded during the year 1898–99 at 227 stations, of which 174 are maintained by the Government of India. Of these latter, four were first-class observations and 38 second-class, 23 of the latter having been transferred to class 3, in which less frequent observations are taken. The number of visits of inspection made during the year was 67; five observatories were returned as very satisfactory, 33 as satisfactory, 19 as fair, and five as bad; and steps were taken to remedy defects. The area under observation embraces not only India, but the whole of the Arabian Sea and Indian Ocean down to Zanzibar and the Seychelles, and the area northwards up to Resht and Kashgar. Besides observing stations, inquiries are made from ships entering Indian ports, which give valuable meteorological data. The points investigated are rainfall, snowfall, barometric and thermometric readings, cloud movements, storms, and earthquakes; daily charts and weekly and monthly reviews, as well as seasonal forecasts and storm warnings are issued. The monthly reviews contained, among other information, rainfall data from 2,280 stations.

The forecast of the probable rainfall for the monsoon of 1898, published in June of that year, was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, and on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The forecast predicted a generally normal and favourable rainfall over the greater part of India, but indicated that the rainfall might be short in Sind, Cutch, Western Rajputana, and parts of Berar, Bombay, and the Punjab. This proved to be in very fair accordance with the facts, excepting that the rainfall in Berar, Central India, and Eastern Rajputana was less favourable than was expected. The only variations from the normal rainfall exceeding 20 per cent. were in Bihar (+ 21 per cent.), and in Rajputana and Berar (— 35 and — 30 per cent. respectively).

The forecast of the winter rains, from December 1898 to February 1899, was issued in December 1898, and predicted normal rainfall in Upper India, slight deficiency in the Gangetic plain, and slight excess in Central India and the Central Provinces. This was less accurate than the preceding forecast, as the rain was considerably below normal except in North-eastern India.

The average rainfall and the actual rainfall of the three years 1896 to 1898, in the regions into which India has been divided, were as follows:— Surveys.

Meteorological Division.	Area, Square Miles.	Number of Stations.	Normal Rainfall.	Actual Rainfall, 1896.	Actual Rainfall, 1897.	Actual Rainfall, 1898.
			Inches.	*Inches.*	*Inches.*	
Punjab Plains	120,000	29	21·52	13·35	18·41	18·67
North-Western Provinces and Oudh.	83,500	44	37·49	23·69	41·39	43·35
Rajputana	67,000	19	28·42	24·13	24·43	19·28
Central India States	91,000	20	42·01	36·22	37·53	46·36
Bihar	30,000	15	45·01	32·52	50·48	54·92
Western Bengal	38,000	10	49·39	45·59	52·50	55·19
Lower Bengal	54,000	28	66·64	52·86	64·53	70·38
Assam and Cachar	61,000	16	96·39	78·26	94·48	89·80
Orissa and Northern Circars	27,000	16	48·00	38·36	52·10	47·85
Central Provinces, South	61,000	17	51·38	56·77	50·21	48·49
Berar and Khandesh	43,000	13	35·96	31·97	32·72	28·50
Gujarat	54,500	13	33·03	36·67	33·08	29·30
Sind and Cutch	68,000	10	8·49	8·74	9·87	5·44
North Deccan	48,000	13	30·54	30·51	33·12	35·40
Konkan and Ghâts	16,000	11	138·92	160·41	152·28	150·62
Malabar and Ghâts	18,000	8	113·89	134·92	146·33	107·79
Hyderabad	74,000	15	32·71	23·36	28·72	30·57
Mysore and Bellary	58,000	18	29·52	25·78	32·19	31·93
Carnatic	72,000	37	36·06	38·23	32·25	47·65
Arakan	11,000	7	148·04	137·21	144·47	142·15
Pegu	32,500	7	71·95	75·94	72·91	71·25
Tenasserim	10,500	4	172·38	199·78	177·55	178·30
Upper Burma	?	13	38·73	33·31	35·67	37·81

Over the whole of India the rainfall of 1898 was ·39 inch above the normal, and the only regions in which it differed from the normal by so much as 10 per cent. were the Konkan and the Carnatic tracts, in which there was an excess amounting to 11·70 and 11·59 per cent. respectively.

Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The revised system of storm signals introduced in 1898 provides for fuller signals being sent to the larger ports, the port authorities deciding in each case whether they will have the full or the less complete signals. On the Bay of Bengal 22 ports received warnings, three of them on the "brief" system. Warnings were sent of nine storms, only three of which were of much intensity. On the western side also 22 ports were warned, seven of them on the "extended" system. Only three unimportant storms were notified. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms, continued to be useful; 313 such warnings were issued by the Meteorological Department during the year. The warnings are generally stated by the recipients to have been timely and satisfactory, but criticisms and suggestions are invited, and, in cases where they have been received, have been adopted.

The rainfall of the early part of the year 1899 was about normal in Burma, Bengal and Assam; but elsewhere it was in defect, or failed entirely. In some districts, as in Khandesh, no rain fell until April. In that month the rainfall was greater, except in Northern Bombay and the Punjab, than the normal, and in parts of Madras the fall was heavy. May was drier than usual, but the monsoon set in favourably in June, until towards the end of the month, when the rainfall on the west coast ceased. The monsoon current from the Bay of Bengal began to give good rain at the end of June, and continued to do so throughout July. But on the west coast and in the Punjab, Rajputana, Berar, the Central Provinces, Hyderabad and Madras, the rainfall of July and August was very seriously deficient, and in many districts hardly any rain fell. In Bengal, Assam, Burma and the North Western Provinces the fall had been above the normal amount, and in September there were showers which relieved the Rainfall of 1899.

SURVEYS.

situation in Madras, Mysore and the Bombay Deccan; but elsewhere the failure of the monsoon rains had caused almost total destruction of the crops. The winter rains fell nowhere until the middle of January, and then were confined to the North Western Provinces and Oudh and parts of the Punjab, Central India, the Central Provinces and Madras.

SETTLEMENTS AND CADASTRAL SURVEYS.

SETTLEMENTS AND CADASTRAL SURVEYS.

The term "settlement" is applied in Indian revenue affairs to the process of assessing the land revenue demand. Occasionally, in newly acquired or specially backward tracts, the land revenue is assessed for a short term of years on a general review of the circumstances and capabilities of the land and people concerned; such a process is called a summary settlement. But a regular settlement is a more complicated affair, and consists of many stages. In the first place, every separate estate or holding is demarcated by permanent marks on the ground; and disputes between neighbouring right-holders are investigated and decided. Every estate or holding is then surveyed and mapped, all boundary marks, wells, and buildings being shown on the field or cadastral maps. Sometimes these field surveys and maps are made by trained professional surveyors belonging to the Survey Department. When the field surveys are made by local or village surveyors, such agents are trained by, and their work is independently tested by, professional surveyors. The work of the professional survey, whether cadastral maps or traversing, is based on, and is checked by, the independent scientific work of the Grand Trigonometrical and Topographical Surveys. After the field maps are prepared, the next process is to classify or record each field according to its productive value, as evidenced by its soil, by the amount of its produce, or by the rent it pays. A record is at the same time drawn up of all rents paid, and of all rights, whether landlord rights, or tenant rights, or rights of user, over all the ground, buildings, wells, and trees shown in the map. Then the assessing officer (or settlement officer, as he is often called) compiles the information obtained for all the lands in a circle of villages; and on a review of all these data, of the past fiscal history of the tract, of the range of prices, of the accessibility of markets, and of other general considerations, he proposes rent rates or revenue rates for the several classes of lands in the circle. In the determination of rent rates or revenue rates for any tract, the rainfall, the subsoil water level, and irrigation facilities are important factors; but improvements made by the owners or occupiers themselves are not held to enhance the assessable value of the land. In re-settlements in the North-West Provinces and Oudh, the rents now enjoyed by the owner of the land are practically the main basis on which the new land revenue is assessed. The rent rates or revenue rates proposed by the settlement officer, and the grounds on which they were based, are then investigated by a superior officer, and are not adopted until they have been accepted or modified by the latter.

In provinces where the zemindari tenure prevails, that is, where single proprietors or proprietary brotherhoods possess large estates of several hundreds or thousands of acres, the State revenue is assessed at an aliquot part (usually about one-half) of the ascertained or assumed rental. The revenue, though it is fixed with reference to acreage rates on the land actually cultivated, is assessed on, and is payable by, each estate as a whole; the assessment remains unchanged for the 30 years or other period of the settlement; the proprietor can bring as much as he likes of his waste or fallow land under the plough; and it is only on re-assessment at the end of the term of the settlement that the State obtains any increase of revenue on account of the extensions of cultivation during the settlement period. In provinces where the ryotwari tenure prevails, that is, where each petty proprietor holds directly from the State, generally cultivates his own land, and has no landlord

between himself and the Government, the revenue is separately assessed at an acreage rate on each petty holding, and land revenue becomes payable at once, or after a short term of grace in the case of uncleared lands, on all extensions of cultivation. The ryotwari proprietor is at liberty to throw up his holding or any portion of it, at the beginning of any year, after reasonable notice; the zemindar or large proprietor engages to pay the revenue assessed upon him for the term of the settlement. SETTLEMENTS AND CADASTRAL SURVEYS.

After the revenue is assessed and the assessment is sanctioned, copies of the field map, of the schedule of fields, and of the record of rights are made; one copy is given to the proprietor; one copy is lodged in the district court-house; and usually a third copy is placed in the subdivisional or tahsil office. Through the agency of the local officials of each village or circle the field maps and record of rights are corrected or written up year by year, so as to make them at all times faithful accounts of current rural facts and circumstances. When revisions of assessment are undertaken at the end of the settlement, the village maps and records serve, after adequate testings and corrections, as the basis for re-assessment; and in this way a re-settlement is a shorter and less costly affair, and causes much less harassment to the people than is involved in an original settlement. At the present time re-settlements have been practically completed in Bombay, and are being made in some districts of Madras, the Punjab, Oudh, Berar, and the Central Provinces; also in outlying parts of Bengal. Original settlements are still being prosecuted on the west coast of Madras and in Lower Burma; while in Upper Burma the first settlement of the land revenue has been begun.

The most recent Bengal report available brings the account of survey and settlement affairs down to September 1898; settlements were in progress in the three districts of Orissa and on the Khurda Government estate, in Chittagong, in Tipperah, and in some hundreds of petty estates and plots in different parts of the province. Settlements and cadastral survey and record of rights were being prosecuted in North Behar, and on Government estates in Noakhali and elsewhere. Bengal.

In Orissa draft records were published for 3,045 villages during the year, and rents were settled for 421,000 tenants in the temporarily settled tracts, besides 7,000 in the Government estate of Khurda and 10,000 in the Madhupur Wards' estate. The rents settled up to date from the commencement show an increase of nearly 15 per cent. in the temporarily settled tracts, and of 21 per cent. in the Khurda estate. Assessment of revenue began during the year under report, and a total increase of 57 per cent. resulted on 3,855 estates, the additional revenue being £31,700. It is reported that the new assessments have been accepted by the zemindars with readiness. The Orissa settlement is expected to be completed by September 1899. In Chittagong the assessment of revenue was completed, and the total increase amounts to £12,000, or over 50 per cent. In Tipperah the operations on the Maharaja's estates resulted in the settlement of rents for 15,746 small landholders during the year, giving an increase of nearly 21 per cent.; and also for 384 tenure-holders, where the increase was 60 per cent. The total addition to the rent-roll since the beginning of operations is £4,300. The fair rents settled on Government estates in Noakhali during the year yielded an increase of £1,100, or 36 per cent.

In North Behar cadastral surveys and settlements were prosecuted in the Mozufferpore, Champaran, Saran, and Darbhanga districts, the total area of which is 12,524 square miles. In Mozufferpore the survey and the initial record writing had both been finished. The district contained over four million separate plots or fields, and over one million separate tenancies. Fair rents had to be settled for only 20,345 tenancies, or for about 2 per cent. of all tenancies; and the total rents in these disputed cases were raised 19 per cent. The final record of rights has been prepared and published for 4,311 villages; final publication had still to be completed for 194, out of the total of 4,505 villages in the district. The tenants-at-will were found to be less than one-tenth of all the tenants; and rent rates ranged from $4\frac{1}{2}$ rupees per acre for occupancy ryots to $5\frac{1}{10}$ rupees per acre for tenants-at-will. In Champaran the survey and record of rights have been finished, final records having been

SETTLEMENTS AND CADASTRAL SURVEYS.

published for 2,860 villages. Fair rents had to be settled for 110,437 out of a total of 450,000 tenancies, and rents were enhanced on the average 9 per cent. in these disputed cases. Over 92 per cent. of all the tenants were found to possess occupancy rights of some kind; and the rent rates averaged $2\frac{1}{4}$ rupees per acre for both occupancy ryots and tenants-at-will. Most tenants-at-will pay their rents in kind, and their fields are said to be inferior to those held by occupancy ryots. In the 4,296 villages of Saran six-sevenths of the survey work and the record of rights had been done. Fair rents had to be settled for 57,628 tenancies out of a total of 448,874 tenancies, with a resulting enhancement, generally on compromise, of nearly 11 per cent. In Saran rent rates have, so far, ranged from $4\frac{1}{3}$ rupees for occupancy ryots to $3\frac{7}{8}$ rupees for tenants-at-will. The total cost of the work is set down at 8 annas per acre in Mozufferpore and Champaran, and 10 annas per acre in Saran, where the business had been found more complicated. The survey began in the Darbhanga district during the year 1896-97, and 1,617 villages in all have been surveyed; disputes were found to be far more numerous than in other districts, great difficulty being found in ascertaining the existing rents; but attestation was completed in more than a million fields. These disputes were apart from any questions of rent, which may have to be faced at a later stage of the operations. Of the amount of £79,000 demanded up to the end of the year on account of recovery of the cost of the Behar operations, 86 per cent. has been collected.

North-Western Provinces and Oudh.

In the North-Western Provinces and Oudh assessments had by the end of the year been completed in all but seven districts, and in two of these operations are practically at an end. In the Meerut district rates were finally sanctioned during the year for six tracts resulting in an increase of 37 per cent., yielding £11,000: in Bahraich two revised settlements were declared, showing an increase of 57 per cent., or £9,800, and in Lalitpur two revised assessments yielding 9 per cent. more than the former demand. Elsewhere no settlements received sanction during the year, though work progressed satisfactorily. The cost of operations per square mile during the year nowhere exceeded 49 rupees.

The rent-rolls for all districts of the North-Western Provinces and Oudh show that the rental demand of the year 1896–97 was £8,115,000, out of which the landlords realised £6,389,000 during the year, £903,000 being on account of arrears of previous years. In consequence of the depression caused by bad seasons, the percentage of rent collections to the total rent demand has fallen from 93 per cent. in 1892–93 to 91 per cent. in 1893–94, and to 79 per cent. in 1897–98; in the latter year the proportion of collections was 76 per cent. in the North-Western Provinces, and 85 per cent. in Oudh. The rent-rolls include the reduced rents paid by privileged tenants, and include no computed rents on account of lands cultivated by proprietors. The cultivated area is approximately held thus:—

	North-Western Provinces.	Oudh.
	Acres.	*Acres.*
By cultivating proprietors	5,975,000	1,117,000
„ privileged tenants	940,000	377,000
„ ryots with occupancy rights	8,794,000	116,000
„ tenants-at-will, or without declared rights	10,672,000	6,980,000
„ rent free	509,000	365,000

Punjab.

The Imperial Survey Department was not employed on revenue or cadastral survey in the Punjab during the year. Settlement operations were in progress in parts of five districts; they had been completed in one district, Dera Ghazi Khan, by the close of the previous year, and they were begun in part of the Hazara district. The Dera Ghazi Khan settlement resulted in an estimated increase of £7,500 in the revenue and its cost was £24,600. In Mooltan two-thirds of the total area had been surveyed, and it was hoped that the remainder would be finished in the ensuing year. The cost up to date had

been £12,900. In Montgomery survey operations had been closed, and settlement rates had been fixed for two tracts, showing an increase of £7,700. The total cost has been £10,000. The Jhelum district has been under settlement for three years, and the expenditure has been £16,400; no new rates were announced during the year. The other district under settlement, besides the Agror valley in the Hazara district, brought under settlement during the year, was Mozuffergarh, where survey operations were still in progress, and were being pushed on vigorously. SETTLEMENTS AND CADASTRAL SURVEYS.

One party of the Survey of India was employed in the Toungoo district of Lower Burma, where 706 square miles were surveyed; a detachment of the same party surveyed 109 square miles in Upper Burma. The average cost of the whole was Rs. 344 per square mile. Locally trained surveyors were also engaged on the survey of grants of waste lands and on minor field to field operations. Burma.

Settlement was in progress over 807 square miles of the Toungoo district and in the Magwe, Sagaing, Meiktila, and Yamethin districts of Upper Burma; in the two last-mentioned districts the settlement operations are of a simplified character. Revision settlement operations were carried on over 710 square miles of the Hanthawaddy district, 812 square miles in Bassein, and 550 square miles in Pegu, the re-settlement work in the Myaungmya district having been completed; the operations included re-survey of considerable areas in each case. Revised assessments were sanctioned for 744 square miles in the Pegu district, giving an increase of 72 per cent., for 429 square miles in Myaungmya, giving an increase of £6,700, and 795 square miles in Bassein, £4,700. No fresh assessments were sanctioned in Upper Burma, but temporary rates have been introduced experimentally into some districts; a Settlement Commissioner has been appointed to expedite the work. The area under supplementary survey, that is, the area for which the field-maps and records are tested and corrected yearly, increased from 22,269 to 22,974 square miles in Lower Burma, and from 4,693 to 7,027 square miles in Upper Burma. The 20 Government survey schools had 430 students on the rolls, including many sons of village headmen. The system of revenue collection by village headmen was introduced into 19 new circles during the year, and there are now 317 of these circles or groups of villages in which the system is in force.

Assessment operations were continued in five districts of the Central Provinces, and on the removal of the obstacles caused by famine good progress was made. In Seoni, and in Betul, the assessment work is finished, and has resulted in increases of 52 and 47 per cent. respectively in the revenue. In Bhandara, Nimar, and Balaghat the assessments up to the end of the year show increases of from 47 to 56 per cent. in the revenue. In Raipur and Chanda work had only recently been begun, and no assessments had been framed. The final reports on the Nagpur, Chindwara, Hoshangabad, and Saugor settlements were in preparation, and reports on the Damoh, Jubbulpore, Wardha, and Narsingpur settlements were awaiting submission. The local government is confident that with a return of good harvests the settlements will be found to work well. In some cases the enhancements are spread over a period of three to five years, or have been postponed during bad seasons. Central Provinces.

A party (No. 6) of the Survey of India continued to be employed on traverse surveys in the Surma and Brahmaputra valleys, with a view to cadastral survey by local agency, as well as on traverse and topographical surveys of tracts in the Brahmaputra valley omitted from the cadastral survey. Under the first head a total of 128 square miles was completed by the party during the year, besides 1,248 square miles of survey under the second head. The work of the local surveying agency consisted, besides a plane table traverse of 27½ square miles in Sylhet, of cadastral survey of 142 square miles. The re-settlement of the Jaintia parganas was brought into effect during the year; the increase of revenue will ultimately be 31 per cent., but this is to be distributed over several years. The cost of the settlement was £1,100. The Cachar re-settlement report was approved during the year. The enhancements amounted to 30½ per cent., leaving out of account extension of cultivation. Assam.

In Madras cadastral re-survey prior to re-settlement was in progress during the year 1898-99 in the Godavery, Kistna, and Kurnool districts, and the area Madras.

SETTLEMENTS AND CADASTRAL SURVEYS.

covered was 404 square miles. Besides this work, 141 square miles of original survey was carried out in the Salem and Coimbatore districts over Government lands excluded from former surveys, and 99 square miles in proprietary estates, under the Act of 1897, which authorised the survey of such estates, either upon the request of the landholders or, in special cases, on the initiative of the Government. Special cadastral surveys of town lands in Tanjore and North Arcot were completed over areas amounting to 13 square miles.

The work was done under the Madras Survey Department in five divisions, and the outturn, as shown above, compares favourably with that of 1897–98. It was still found, however, that the agency of the village accountants (*karnams*) was in some instances unsatisfactory, and constant supervision is needed. An increase in their pay was sanctioned during the year. The re-survey of the Godavery district has now been completed; in Kistna and Kurnool 1,729 and 4,095 square miles respectively remain to be done; there is also an area of 3,708 square miles on lands excluded from former surveys awaiting completion. For the ensuing year four survey parties were sanctioned, and the estimated outturn is fixed at 1,838 square miles of survey and re-survey altogether. The number of copies of survey and other maps struck off during 1898–99 was 307,000, or 34,000 more than in 1897–98. The final report on the re-settlement of the Trichinopoly district was submitted during the year. The total cost of the operations was £16,700, and the amount of increase in the revenue was £29,000 or 30 per cent. The general basis for the increase was the great rise of prices of produce since the last settlement. The re-settlement is for a term of 30 years. The total outlay on survey and settlement, since operations began in 1858, has been £2,417,700; while the net increase of revenue secured has been £600,000, or 25 per cent. on the outlay.

Bombay.

In Bombay, where survey and settlement work are approaching completion, 15 survey sections employed in Gujarat, the Deccan, and the Konkan, during the year 1898–99, measured an area of 730 square miles and classified 812 square miles. The revision survey in Broach and the Panch mahals was completed, and progress was made in the Nasik, Belgaum, Satara, Kolaba, and Thana districts. Besides this, cultivable waste land was being measured and broken up into blocks in Sind. Revised settlements were introduced into five tracts and six alienated villages in Bombay, besides one tract in the Bhor State. After the end of the financial year revised settlements were introduced into 18 tracts, containing 1,482 villages, with a total increase of 27 per cent. on the previous revenue; also into five alienated villages. The total approximate cost of the Bombay revision settlement up to the 31st March 1899 was £471,000; this expenditure has resulted in an increase in the revenue demand of £293,500, or 30 per cent. on the former revenue, being equal to a return of 62 per cent. on the total expenditure. In Sind the work of the year consisted of the preparation of revised irrigation settlements in seven tracts and the introduction of revised rates into seven tracts.

Berar.

Particulars of the re-settlement operations which are in progress in Berar were given in last year's Statement. In order to hasten the close of the survey operations, an extra party was employed for one year, and the outturn of work was increased. The number of villages completed rose to 1,526, and the area entirely or partially re-measured was 25,700 acres, while old work of the 1861–67 survey was confirmed over 2,323,000 acres. The work was done very cheaply, only costing Rs. 11⅓ per square mile. Settlement registers were completed in 367 villages. The proposals for revision settlement of one taluka in the Buldana district were finally sanctioned during the year.

CHAPTER VII.

LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX; AND WARDS' ESTATES.

THE subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the year 1898-99.

DETAILS of LAND REVENUE and EXPENDITURE.

	India, General.	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
REVENUE.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Ordinary Land Revenue - -	89,500	2,577,884	4,462,099	1,589,464	984,052	579,635	387,796	3,687,744	2,547,094	16,906,268
Recovery of Survey and Settlement Charges.	--	48,683	—	--	—	—	—	—	—	48,683
Sale of Proprietary Right of Government in Land.	39	96	66	1,183	—	—	56	—	—	1,440
Assessment of alienated lands, less quit-rents.	—	5,568	—	16,223	—	—	—	—	651,847	673,638
Sale of Waste Lands and Redemption of Land Revenue.	189	13,622	11,017	84,006	4,404	—	1,701	861	—	115,800
Capitation Tax, or House Tax levied in lieu.	1,111	872	—	—	680,669	—	—	—	—	682,652
Receipts for the Improvement of Government Estates.	—	37,469	—	—	—	—	—	--	—	37,469
Fisheries and other Receipts classed as Miscellaneous.	8,477	12,330	29,907	63,805	202,362	2,972	29,388	146,325	18,201	513,767
Total Gross Revenue - Rx.	99,316	2,696,524	4,503,089	1,754,681	1,871,487	582,607	418,941	3,834,930	3,217,142	18,979,717
Deduct portion credited to Public Works for irrigation.	—	—	*78,332*	*45,265*	—	—	—	*476,098*	*72,811*	*672,506*
Total credited to Land Revenue for 1898-99 - £.	99,316	2,696,524	4,424,757	1,710,416	1,871,487	582,607	418,941	3,358,832	3,144,331	18,307,211
Total for 1897-98 - £.	99,103	2,652,146	3,734,787	1,635,319	1,764,180	445,170	397,415	3,291,832	3,102,478	17,122,430
EXPENDITURE.										
District Administration - -	17,520	203,280	230,000	129,682	128,062	52,310	38,784	264,048	185,916	1,249,602
Survey and Settlement - -	9,819	76,516	27,086	30,561	45,467	18,335	4,747	28,209	28,100	268,840
Land Records and Agriculture -	6,061	5,326	241,790	103,478	30,078	39,183	13,357	127,535	139,068	705,876
Charges directly connected with the collection of Land Revenue.	1,555	32,167	12,861	5,677	110,087	872	10,043	220,129	84,074	477,465
Total Charges in India - £.	34,955	317,289	511,737	269,398	313,694	110,700	66,931	639,921	437,158	2,701,783
Charges in England - - - - - - - - - - - - - - £.										1,257
Total Charges - - - - - - - - - - - - - - £.										2,703,040

In India the State, or the monarch, has always enjoyed a share in the rent or profits from the land. This revenue is levied according to an assessment fixed, either permanently or periodically, on estates or holdings. The assessment was fixed permanently 100 years ago on certain tracts paying about £2,850,000 a year; and it is fixed periodically, for terms of 12 to

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30 years, over the rest of India. On large estates, ranging from a few hundred to many thousand acres each, the periodical assessment is a share, generally about one-half, of the rental enjoyed by the proprietors; on small estates cultivated by peasant proprietors the periodical assessment is imposed on the cultivated area at a rate per acre fixed with reference to the productiveness of the land, and representing about one-half of the estimated letting value. The permanently settled tracts comprise the greater part of Bengal, about one-third of Madras, and certain southern districts of the North-West Provinces. Of the temporarily settled tracts, the North-Western Provinces, the Punjab, Oudh, the Central Provinces, and Orissa, mainly contain estates held by proprietary brotherhoods or large proprietors; while in Bombay, Burma, Assam, and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors.

The appended table gives the acreage of land held under various tenures, and the amount over which proprietary right was transferred, either by order of court or by voluntary gift or sale (including generally mortgage with possession, and excluding inheritances and temporary transfers) during the year 1897-98. The figures are in thousands of acres:—

—	Rayatwari (peasant Proprietors).	Zamindari (larger Proprietors) and Village Communities.		Total.	Transfers.
		Permanently settled.	Temporarily settled.		
Upper Burma - - -	50,756	—	6	50,762	20
Lower Burma - - -	53,317	5	155	53,477	450
Assam - - - -	21,388	3,930	1,166	26,484	73
Bengal - - - -	—	81,879	16,136	98,015	*
North-Western Provinces -	—	6,160	46,437	52,597	919
Oudh - - - -	—	1,113	14,225	15,338	188
Punjab - - - -	—	—	70,975	70,975	1,089
Sind - - - -	29,959	—	—	29,959	*
Bombay - - - -	44,881	—	3,944	48,825	*
Central Provinces - -	1,248	—	42,867	44,115	570
Madras - - - -	60,846	29,528	—	90,374	450

* Figures not available.

In the permanently settled tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental, or perhaps one twenty-fourth of the gross value of the produce; in the permanently settled tracts of the North-West Provinces the incidence is about Rs. 1¾ per acre of cultivated land; in Madras it is considerably lower than this. The average advantages of soil and climate are on the whole greater, and the prevailing rates of rent are, on the whole, higher in the permanently settled than in the temporarily settled tracts. In the latter tracts the land revenue represents something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce; the average incidence of the land revenue as given in the returns is Rs. 2 in the North-Western Provinces and Oudh, Rs. 1⅞ in the Panjab, Rs. 2 in Lower Burma, Rs. 2½ in Assam, Rs. 2⅗ in Sind, Rs. 1½ in Bombay, 10½ annas in the Central Provinces, and Rs. 2¼ in Madras. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall, and according to the facilities for carrying produce to markets or to the sea-board. In Sind and Madras the land revenue rates given above include the charge for irrigation supplied by the State; elsewhere payment for water, supplied by State canals

or reservoirs for purposes of irrigation, is made over and above the land revenue, either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves. LAND REVENUE.

The receipts of the year 1898–99 exceeded the total of 1895–96, the year before the famine, which hitherto had shown the largest total. But some part of the increase of the year was due to the recovery of revenues the payment of which was suspended during the famine, which were to a large extent paid off during the year. The increase of the land revenue in past years may be seen in the following table:—

	Land Revenue Receipts excluding Receipts due to Irrigation.	Increase or Decrease.
	£	Per Cent.
1861–65 (five years' average) - - -	13,287,000	
1866–70 „ „ - - -	13,227,000	+0·3
1871–75 „ „ - - -	13,977,000	+5·0
1876–80 „ „ (includes the great famine of South India) - -	14,076,000	+0·7
1881–85 „ „ - - -	14,748,000	+4·8
1886–90 „ „ - - -	15,444,000	+4·7
1891–95 „ „ - - -	16,521,000	+7·0
1895–96 - - - - - - -	17,467,000	+5·7
1896–97 (famine year) - - - -	15,983,000	−8·5
1897–98 - - - - - - -	17,123,000	+7·1
1898–99 - - - - - - -	18,306,000	+6·9

A part of the increase during later years was due to the acquisition of Upper Burma, which yielded £111,000 of land revenue in the year 1886–87, and £593,000 in the year 1898–99.

The progress of the land revenue, the condition of the landed classes, and the relations of these classes to each other are now noticed province by province. The figures are taken from the land revenue reports, and differ in some instances slightly from those given above, which are from the corrected Accounts of the Government of India.

The rainfall of 1898–99 was generally in excess of the normal all over Bengal, owing to exceptionally heavy rain in August and September. The weather was also favourable to the spring crop of 1899. The early autumn crops, consisting chiefly of millets and rice, yielded a good normal return; the winter rice crop was above the normal; and the spring crops, which covered an area of 15 millions of acres, compared with 14⅔ millions in 1897–98, also gave a good yield. Bengal.

The collections of land revenue during the last three years resulted as follows:—

	1896–97.	1897–98.	1898–99.
	£	£	£
Demand on account of current year -	2,583,537	2,594,544	2,625,884
„ „ arrears - -	86,810	95,344	110,176
Collection on account of current year -	2,499,074	2,499,530	2,535,628
„ „ arrears - -	66,455	77,094	84,168
Remissions - - - - - -	11,546	9,950	12,924

The total amount collected during the year under report was 99¼ per cent. on the current demand; it would have been higher, but for the Chittagong

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cyclone of October 1897, which occasioned considerable remissions and short collections in that division. The current demand for the three years was thus distributed:—

	1896-97.	1897-98.	1898-99.
	£	£	£
Permanently settled estates - - -	2,153,486	2,153,586	2,154,654
Temporarily settled estates - - -	192,992	194,504	211,066
Estates held direct from Government - -	237,060	246,454	260,166

The increase under Class II. was chiefly due to the Orissa Settlements, and that under Class III. to resettlements and good harvests. Land was sold for arrears in 1,790 cases out of 21,433 cases in which estates became liable to sale under the law.

Under the Public Demands Recovery Act, 211,300 certificates were filed for recovery of arrears of revenue, cesses, &c., compared with 172,800 in the previous year; attached property was sold in 6,317 cases, and 52 defaulters were imprisoned. Defaulters may deposit the amount due with a penalty within 30 days after the sale of the property, and thus have the sale set aside. This procedure is said to have diminished competition among bidders at the sales.

The revaluation of the rental, for the purposes of the road cess, is practically complete for the whole province. The gross rental of the 43 districts of Bengal in which the Act was in force was returned for road cess purposes at £11,025,000 for the year 1898-99, as compared with £8,755,000 for 40 districts in 1873. No districts showed any decrease in rental at the revaluations completed during the year under review. The registration of landowners had previously been completed for the whole of Bengal; the total number of interests registered under the initial registration is 989,039, and the percentage of transfers by succession or otherwise during the year was 5·8 on the total number of interests recorded at the initial registration. The corresponding percentages in each of the two previous years was 6·7 and 6·9.

The number of estates under Government management was 2,817, of which 239 belonged to private individuals. The cost of management was £16,400, or 6·3 of the current revenue demand, and £14,200 was spent on works of improvement, besides other sums on education and roads. The condition of the tenants on Government estates is reported to have been generally good.

Advances to agriculturists under the Loans Acts amounted to £4,000 only, as compared with £104,000 during the year 1897-98, in which the effect of the famine was still felt.

The Bengal Tenancy Act continues to work smoothly, and the relations between landlords and tenants were, on the whole, fairly satisfactory. The Board of Revenue, however, are of opinion that, owing, among other reasons, to the general spread of education, the improvement of communications, the gradual weakening of the caste system, and the introduction of the Bengal Tenancy Act, the old personal or patriarchal relations between landlords and tenants are rapidly being replaced by relations based solely on law and contract.

North-West Provinces and Oudh.

The latest report on land revenue affairs in the North-West Provinces and Oudh pertains to the year ending 30th September 1898. The season was a favourable one, in spite of deficient rain in July and January, and two good crops were harvested. Among cereals, maize, bajra, wheat, and barley, gave a good normal out-turn, and other crops were little below this standard, including the important rice crop; cotton and indigo yielded only three-fourths of a full crop.

The total area of crops was 40,142,000 acres, as compared with 36,907,000 acres in 1896-97, the year of bad harvests, and with 40,136,000 acres in 1895-96.

The demand and collections of land revenue in the North-Western Provinces and Oudh for the last three years, also of various rates, cesses, and other sources of income connected with the land, are given as follows :— LAND REVENUE.

	1895–96.	1896–97.	1897–98.
Current demand :	£	£	£
Land revenue - - - - -	4,020,528	4,059,466	4,077,324
Rates, cesses, &c. - - - -	1,146,996	1,400,814	1,472,214
Collection on account of the current year :			
Land revenue - - - - -	3,824,332	3,077,098	4,009,210
Rates, cesses, &c. - - -	1,100,606	1,208,989	1,364,268
Total receipts under all heads - - -	5,961,770	4,358,674	5,695,068

These figures show a satisfactory recovery from the disasters of the previous years. In spite of enhancements of demand owing to revision, the amount collected was more than 97 per cent. of the demand; of the recoverable balance, nearly half was outstanding in the Allahabad division, which suffered severely in the famine year.

The total number of coercive processes of all kinds was 60,236, against a total of 47,726 during the preceding year, and attachments of property for arrears were 13.341 as compared with 10,387. The previous year's troubles had necessitated very lenient treatment, and the increase is to be considered as a return to the usual state of things, and not as showing special difficulties in the recovery of dues in the year under report.

The suits instituted under the Rent Law, both in the North-Western Provinces and in Oudh, show a large increase over the figures of 1896–97, which is ascribed to the landlord's desire to realise arrears of rent, while tenants on the other hand, hoped that nonpayment might lead to remission. Suits for arrears of rent constituted in the North-Western provinces 91 per cent., and in Oudh 74 per cent. of the total number.

There was a decline in the total number of land transfers, as compared with the previous year, owing to the return of agricultural prosperity; but the following table shows that there has lately been a steady increase in the number, putting aside transfers by order of court or by succession :—

	Sale of Revenue Paying Land.		Mortgages.	
	N.W.P.	Oudh.	N.W.P.	Oudh.
1893–94 - - -	17,107	2,539	7,655	6,483
1894–95 - - - -	17,052	2,717	8,256	7,144
1895–96 - - -	20,030	3,070	9,486	8,255
1896–97 - - - -	22,599	3,487	13,388	8,205
1897–98 - - -	21,329	4,035	12,077	8,606

The number of loans sanctioned under the Land Improvement Loans Act of 1883 fell from 151,543 to 293, the total amount lent having been only £3,600; under the Agriculturists Loans Act, £23,600 were advanced during the year, against £149,800 in the previous year. The outstanding amounts of principal and interest under both Acts, at the end of the year, were £186,000, a large part of the heavy outstandings of 1896–97 having been recovered.

The latest Punjab land revenue report is for the year ending on the 30th September 1898. The harvests of that year were good, the autumn harvest exceptionally good, and the area of crops, nearly 26 millions of acres, had only once been exceeded in the last decade. The area under irrigation was also abnormally high, amounting to 9½ millions of acres, which was 8½ per cent. above the figure for the previous year of drought. PUNJAB.

LAND REVENUE.

The area under wheat, the chief crop of the Punjab, rose 16½ per cent. in 1897–98, as compared with the average. Prices of food grains fell to the normal level.

The regular land revenue collections on account of the year were nearly 16 per cent. above the collections of the previous year, or £1,552,000 in all. The amount under suspension at the beginning of the year was £164,000, and £10,400 were suspended during the year. Out of this, £82,000 have been recovered during the year. The number of writs and warrants issued against defaulters rose from 40,837 to 45,363. As in other provinces, this increase is ascribed partly to the claim for arrears, and partly to the belief of the people, founded on the leniency of the previous year, that failure to pay would result in remission or suspension of the revenue.

Half of the cultivated land is now held by rent-paying tenants. In 1887–88 the proportion so held was 38 per cent.; and it has grown steadily since that date. At the same time, the number of tenants-at-will has been increasing, until in the year under report, it was 80·5 per cent. of the total number of tenants; and of tenants-at-will, again, an increasing proportion pay rents in kind.

The following table gives details regarding transfers of land during recent years:—

	Area of Cultivated Land			Average Prices realised per Acre of Cultivated Land sold.
	Mortgaged.	Redeemed.	Sold.	
	Acres.	Acres.	Acres.	Rs.
Average of five years 1888–1893	381,760	211,936	164,952	54
1893-94	465,410	317,453	218,703	56
1894-95	432,573	259,584	185,823	64
1895-96	453,661	292,505	203,469	59
1896-97	471,809	309,572	199,160	71
1897-98	554,959	413,412	218,940	73

The area sold to "new agriculturists" was 5 per cent. less than in the previous year, and amounted to 16·4 per cent. of the area sold; other sales and mortgages show a considerable increase in the year under report. The average prices given above are not absolutely accurate, but they may be taken as showing broadly the proportionate increase in land values.

The tenancy question is not a burning one in the Punjab, and the number of suits under the Tenancy Act for enhancement of rents fell again from 779 to 511; the number of ejectments of tenants-at-will by order of the revenue courts rose from 6,259 to 6,813, but these figures still remain unimportant. The rates of cash rent showed no appreciable variation from the figures given last year; rents in kind vary between 50 and 25 per cent. of the produce.

The following table shows the course of land prices in the Punjab for 37 years:—

	Price per Acre of Cultivated Revenue Paying Land.	Number of Years' Purchase of the Land Revenue which the Price represents.
	Rs.	
Average for the period 1861–65	(approx.) 7	9
„ „ 1866–71	11	18
„ „ 1871–75	16	26
„ „ 1876–81	19	28
„ „ 1881–86	18	36
„ „ 1889–92	57	54
„ „ 1893–97	65	62
„ „ 1897–98	73	70

Over the Punjab proper, excluding the Delhi territory, the area of cultivated land has risen in the same period from 13¾ millions to 21½ millions of acres.

Land Revenue. Burma.

Although the year 1898–99 shows an increasing revenue and extended cultivation, the season was a somewhat disappointing one in Lower Burma, owing to the early cessation of the rains; and in Upper Burma, though the season was on the whole an average one, the crops suffered considerably from the same cause. In Lower Burma the gross demand under the various heads was as follows:—

	1897-98.	1898-99.
	£.	£.
Land	834,204	867,916
Capitation tax	278,472	289,058
Fisheries	116,004	125,196
Other sources	20,194	21,795
Total	1,248,874	1,303,965

The increase in land revenue proper was due chiefly to the extension of the cultivated area, owing to the good harvests of the two preceding years, but revision of rates in one subdivision also contributed; under capitation tax the growth is due to the increased number of assessees, of whom three-fourths are agriculturists. In Upper Burma the gross revenue demand was—

	1897-98.	1898-99.
	£.	£.
Household tax	340,956	396,792
State land	99,236	106,852
Miscellaneous	83,662	91,270
Total	523,854	594,914

This large increase was chiefly due to the restoration of the full rates (Rs. 10 per household) of the *thathameda* or household tax, and it was to some extent counterbalanced by the larger remissions, amounting to Rx. 36,196, rendered necessary by the early cessation of the rains. The revenue from the State lands is levied either by assessment or by a rent fixed at a share of the produce; extension of cultivation and a better outturn account for the increase. About one-fifth of the occupied area in Lower Burma was worked by tenants at an average rent, paid generally in kind, equal to about Rs. 8 per acre, which is less than one-third of the gross produce. Legislation has been proposed with a view to secure reasonable permanence of occupancy to these tenants. There was an increase during the year in the areas sold and mortgaged, and in some of the coast districts a considerable amount of land is now held by non-agriculturists and non-Burmans. The price of paddy at Rangoon ranged from Rs. 85 to Rs. 105 per 100 baskets; there was a steady decline at the end of the year, and the inland prices of rice fell in a corresponding manner.

Central Provinces.

The latest land revenue report from the Central Provinces is for the year ending in September 1898. The monsoon of 1897 was singularly favourable, and the autumn harvest specially good; large millet gave a bumper outturn, and there was a good crop of rice. Of other important crops, cotton and sesamum yielded a normal outturn, but the sugarcane crop was below the average. The winter rains were short, and the wheat and pulse crops were below the average. The yield of the year for the province as a whole was 5 per cent. above the normal, and only the districts of Saugor, Hoshangabad, and Balaghat fell much below it.

LAND REVENUE.

The figures given in the margin afford a comparison between the results of the harvests of the last six years, taking into account both area and yield. Owing to the difficulty of obtaining seed grain, the area cropped, though larger than in 1896–97, was only 16½ millions of acres, 9 per cent. below the amount, 18 millions, which is taken as the normal. Of the year's total, 30 per cent. was under the more valuable spring crops, compared with 44 per cent. in 1893–94; and the proportion of wheat to other spring crops has also fallen very considerably during the last few years. Prices fell rapidly after the autumn harvest had been gathered, and the good year favourably affected the physical condition of the people, but the recovery as regards their resources was less complete. Loans were made by Government for agricultural purposes during the year to the extent of £82,300, and the amount outstanding at the end of the year, *i.e.*, in September 1898, was £187,000. The ordinary revenue demand for the year was £566,800, and 94 per cent. of it was collected. The arrears left over from the famine amounted to £255,200, of which £64,000 were collected during the year, and nearly half the balance, or £93,800, was remitted, besides £7,800 from the current year's demand. The demand under miscellaneous heads of land revenue was £20,000, of which 71 per cent. was collected. The number of sales of moveable property for non-payment of dues rose from 115 to 198. The areas sold or mortgaged during the last three years compare as follows :—

Percentage of crop as compared with a normal outturn :

1892–93	84
1893–94	78
1894–95	73
1895–96	68
1896–97	56
1897–98	89

———	1895–96.	1896–97.	1897–98.
	Acres.	Acres.	Acres.
Private sales	385,945	337,044	391,470
Sales by order of court	142,184	84,944	111,936
Mortgages	97,198	64,651	98,642

The number of suits under the Rent and Tenancy Law, which fell from 16,049 to 14,145 in 1896–97, rose again in 1897–98 to 14,449.

Assam.

In the Assam Valley, the season 1898–99 was a favourable one. The rainfall was sufficient in most districts, and the rice crop, which forms two-thirds of the total crops, was generally good, but the outturn of tea was not satisfactory. The prices of food grains, which were high in the previous year, fell generally, the fall being specially marked in the case of rice, which was in some districts more than 50 per cent. cheaper. The revenue demand for the year was £384,500, and the arrears to be recovered were £32,200; of these amounts, 92½ per cent. was realised. The number of sales of land for non-payment of revenue rose from 166 to 299, and those of moveable property from 307 to 538. The schemes which have been under consideration for the colonisation of waste lands in Assam with a view to the relief of over-populated districts in Behar and Bengal again occupied attention during the year. No great progress has as yet been made in regard to this question, which is complicated by the as yet unsettled question of tenancy legislation in Assam.

Madras.

In the Madras Presidency the season was not altogether favourable to agriculture during the year 1897–98 on the east coast, in the Deccan, and in two other districts. The average rainfall of the year was above the normal rate; but the rain was badly distributed. The total area under crop was 27¼ millions of acres, as compared with 26½ millions in the preceding year. The outturn of the crops is reported to have been on the whole not much below the normal. Prices of food ranged considerably dearer than in the previous year; the three millets, which are the principal food of the poor, rose more than 40 per cent., while rice rose 27 per cent. The scarcity of the previous year and the large demand from other parts of India caused an unwillingness among the ryots to place their stocks upon the market.

Land Revenue.

The land revenue receipts for the year ending June 1898 rose from £3,589,000 to £3,694,000, and the revenue was promptly collected in almost every district. Of the total demand, £332,000 was due from permanently settled estates, and £49,000 from villages held under special tenures, the remainder coming for the most part from the assessment and water rate paid by peasant proprietors. Remissions were granted to the amount of £32,700 on lands where the crops failed. The outstanding arrears of revenue were £223,000 in June 1897, but had been reduced by June 1898 to £137,000. The number of demand notices issued was large, owing to the arrears of famine years which fell to be collected. The area of land sold for arrears was 25,400 acres, against 21,500 in the previous year, when the area was exceptionally small; 9,500 acres were bought in by the Government.

Bombay.

The season of 1898–99 is reported to have been, on the whole, favourable in the Bombay Presidency, although the rainfall was not so good towards the end of it, and crops were below normal in most districts. In Sind, the inundation was one of the worst on record, and where there were no canals the crops failed generally, and fodder was scarce. Prices of food grains, with few exceptions, fell everywhere. The amount of land revenue for collection fell from £2,718,000 to £2,590,000, owing partly to the arrears included in the demand of 1897–98, and partly to the unfavourable season in Sind. Collections up to the end of the year amounted to £2,507,000, including £46,000 for arrears. The number of distraints for nonpayment of land revenue rose from 1,446 to 3,156; but there were only 85 in Sind. The amount of land revenue remitted was £34,000. The sums advanced by Government to cultivators amounted to £55,000 only, compared with £153,000 in the previous year; but of this amount the Sind cultivators, who had no advances in 1897–98, received £14,700, chiefly for the purchase of seed and cattle.

Berar.

The season of 1898–99 in Berar, although the rainfall was again short, was fairly favourable for the autumn crop, but the spring crops failed generally. The outturn of millets was good, but, owing to the very low prices of food grains, the cultivator benefited little, and the best result was an increase of 33 per cent. in the stock of millet in the province, which was of special importance in view of the famine at the end of 1899. The area cropped was 6,787,000 acres, of which 84 per cent. was under autumn crops. The collections on account of land revenue and local rates were £522,000. against £501,000 in the previous year. The land revenue is moderately assessed in Berar, and nearly the whole amount demanded was collected. The number of fields sold for arrears due was 178, personal property was sold in 64 cases, and one defaulter was imprisoned. Voluntary sales of land were high as in the previous year, an area of 162,000 acres being thus transferred, on an average price of 16 times the assessment.

WARDS' ESTATES.

Wards' Estates.

In most of the larger provinces a Court of Wards has been established, which undertakes the management of estates belonging to minors, idiots, or other persons declared incapable of managing their own affairs. The position and powers of the Court of Wards are prescribed by law; and recent enactments have enabled indebted proprietors to place their estates voluntarily under the Court of Wards. The duty of the Court is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way. During the year 1898–99 the number of estates managed by Courts of Wards in different parts of British India was 1,153, with a total annual income of £1,771,000. The period for which an estate remains under the Court of Wards is generally from 10 to 12 years.

WARDS' ESTATES.

Bengal.

In Bengal, 67 wards' estates and 68 attached estates, or six less than in the preceding year, were under the management of the Court of Wards, with a total rental of £803,000; the collections on account of the current rental came to 66 per cent. on the current demand as in the preceding year. Twenty-one of the estates had a rental demand of over £3,500, and six of over £14,000. Eight estates were taken under management and seven were released; of the latter, only one was of importance, the income amounting to £4,200 per annum, and for this estate debts to the amount of £10,400 had been paid off before the estate was handed over, out of a total debt of £11,700. The management charges of the estates under the Court for the whole of the year amounted to 7 per cent. of the current rental demand. There was spent on schools and dispensaries, on surveys, and improvement and maintenance of estates, a sum of £52,600, £113,000 for the maintenance of the wards, and £4,700 on their education. Debts to the amount of £91,800 were paid off during the year, and the outstanding debts due from all wards' estates were £849,000 at the close of the year. The cash balances at credit of the estates were £152,400 on the 31st March 1899, and the investments in Government securities were valued at £451,000.

North-Western Provinces and Oudh.

The number of estates under the Court of Wards in the North-Western Provinces and Oudh for the whole or part of the year ending in September 1898 was 207, with a yearly rental of £502,000. Twenty-eight fresh estates were taken under management; 13 estates were restored to their proprietors during the year, in all but three of which the financial position had been much improved during the term of management; the other three were hopelessly bankrupt. The land revenue and local rates due upon the estates came to 45 per cent. upon the gross rental, or £226,000 in all. The total debts of the estates amounted to £2,410,000, of which £693,000 has been paid off, and £787,000 replaced by loans at a lower rate of interest. The cost of management averaged 6 per cent. on the total receipts, compared with 7 per cent. in 1896–97, and 9 per cent. in the two preceding years. The amount spent on improvements was £11,300, rather more than in 1896–97, but there was a large decrease in advances to tenants in comparison with those issued in the famine year, which were to a large extent recovered during the year under report. Of the current rental of the year 86 per cent. was collected, leaving the total balance, current and arrear, at £163,000.

Punjab.

At the end of September 1898 the number of estates under the management of the Punjab Court of Wards had been reduced from 100 to 70, owing to the release of certain insignificant properties not properly within the province of the Court; besides these, five estates and half a sixth were released, and six estates brought under the Court during the year. Five of the estates have an income of over £3,500 a year, and six of them have an area of more than 10,000 acres. The gross income of the estates was £73,000; and the expenditure, including repayments of debt, was £51,000. The cost of management was 8 per cent., against 11 per cent. in the previous year, of the gross income. £9,300 were spent out of income on paying off debts and interest; the debts of all the wards, which had been £131,000, were reduced to £45,000 by the end of the year. Investments made in behalf of wards amounted to £15,200. The expenditure on works of improvement was £3,600, and on the personal expenses and education of wards, £13,000.

Central Provinces.

In the Central Provinces the number of estates under the management of the Court of Wards at the end of the revenue year 1897–98, *i.e.* in September 1898, was 178, six estates having been released and 12 taken under management during the year. Of the released estates, the most important was one with a rent roll of £4,300, which was handed over to the proprietor on attainment of his majority. The estates under management throughout the year numbered 166, with a gross aggregate income of £119,000, the effect of the good crops being shown in largely increased collections of revenue and better progress in repayment of debt. The current expenditure was £109,000, of which £49,000 was for Government revenue and cesses, and £21,000 for personal expenses of wards. Substantial aid was given to cultivators in advances of cash and grain. The total indebtedness of the estates under management at the close of the year was over £166,000.

Three estates in Madras were handed over during the year, and 39 remained under control of the Court at the end of the year. Of those handed over one had been under management for 21 years; £1,500 had been spent on irrigation, and the revenue had increased 16 per cent.; for another, £12,000 of debts had been recovered, and £1,400 paid off; the third was a small estate. The season was, on the whole, favourable on most of the estates; 689,000 acres, or 91 per cent. of the total area of all holdings on these estates was cultivated. The rent collections on account of the current year amounted to £143,000, or 85 per cent. on the current demand; the demand on account of arrears amounted to £146,000, of which £29,800 were collected during the year. The cost of management and of State assistance came to 11½ per cent. on the total receipts of the year. The balance at the credit of all estates, invested and uninvested, at the end of the year was £333,000. The debts due by the estates at the end of the year were £118,400. The expenditure on works of irrigation and other improvements was £18,400. The education of the 52 wards, 46 male and 6 female, received due attention. A Bill was introduced, and passed soon after the end of the year, to permit the Court of Wards to take charge of encumbered estates when the owners apply to be declared incapacitated to manage them; the Bill was intended chiefly for the benefit of the owners of ancient properties. WARDS' ESTATES. Madras.

In Bombay the estates under the Court of Wards or under Government management were of several kinds, namely:— Bombay.

—	No.	Aggregate Income.
		£.
(1.) Estates under the Court of Wards, outside Guzerat -	43	12,800
(2.) Encumbered estates in Guzerat, &c., managed under Acts of 1862, 1881, 1888 and 1890, and under the Civil Procedure Code; and talukdari villages -	479	81,200
(3.) Encumbered estates in Sind - - - - -	2	800

Outside Guzerat the estates were of small area.

The estates of the second category are all in Guzerat, and are under the care of a special revenue officer. The total collections of these Guzerat estates were £53,800. Payments to creditors were £10,400; £14,200 were paid as Government land revenue; maintenance of the owners and their families cost £20,000; and £10,400 was the amount of uncollected balance at the close of the year. Each minor talukdar was receiving education either at the Jubilee Institute at Ahmedabad or at village schools. The income of the talukdari villages under revenue charge amounted to £27,400. Under the Guzerat Talukdars' Act of 1888, loans to the amount of about £6,500 were sanctioned; applications for permission to borrow £2,000 were rejected. Of the two encumbered estates in Sind, both were in the Karachi district, and of small value, and one was released.

There were no wards' estates under the management of public officers in— Burma, &c.

Burma, | Berar,
Assam, | Ajmere,

during the year.

CHAPTER VIII.

FORESTS.

FORESTS.

THE subjoined tables give the forest receipts, expenditure, and net revenue for each province during the year 1898–99 :—

	India, General.	Bengal.	North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
REVENUE.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Receipts - - - -	28,938	64,822	104,536	98,296	556,726	66,340	26,539	140,702	153,010	1,239,909
EXPENDITURE.										
General direction - -	5,551	—	—	—	—	—	—	—	—	5,551
Conservancy and Works -	13,683	12,489	36,716	34,102	97,244	21,438	7,401	51,084	58,778	332,935
Establishments, &c. - -	10,457	19,933	28,086	22,921	64,502	36,651	12,950	55,228	63,839	314,567
Charges in England - -	7,431	—	—	—	—	—	—	—	—	7,431
TOTAL Expenditure -	37,122	32,422	64,802	57,023	161,746	58,089	20,351	106,312	122,617	660,484
Net Revenue or Forest Surplus, 1898–99 -	— *8,184*	32,400	39,734	41,273	394,980	8,251	6,188	34,390	30,393	579,425
Net Revenue or Forest Surplus, 1897–98 -	— *220*	35,723	31,255	19,769	334,577	— *9,426*	6,400	37,576	36,231	491,885

General.

Some beginning was made in the forest administration and conservancy of Southern India in 1844; 10 or 12 years later similar work was begun in Western and Northern India, and was taken up systematically all over India when the Mutiny troubles were over. Within the last 20 years forest laws have been enacted for, and forest administration has been placed upon a permanent basis in, every province of India. The superior officers of the forest service have been, for the most part, selected by competition, and have been trained in forestry, either in Germany, or in France, or at Cooper's Hill College. During the year 1893–94 it was decided that 20 per cent. of the 210 superior posts in the Forest Department should eventually be filled by selected officers, chiefly Natives of India, from the subordinate or provincial branch of the Department. Some of the subordinate officials are trained at a forest school near Dehra, in the sub-Himalayan country of the North-Western Provinces, and this system of professional training at local centres will be gradually extended. The first object of the forest administration is to select, acquire, and mark off as reserves an area of State forest in every province sufficient to supply the wants of the neighbourhood and the province in respect of timber, firewood, bamboos, canes, and other forest produce, and sufficient also for supplying the foreign demand for such articles as teak timber, sandal wood, and rubber. The reserves are, or will be, surveyed, conserved, and worked on sanctioned plans, designed so as to obtain the largest possible permanent yield in the most economical way. Private rights in the reserves are bought out or compromised. Among the most important measures of conservancy are the exclusion of the yearly fires which used to devastate forests, the maintenance of adequate seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of more than 80,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves are over 30,000 square miles of State forests, some part of which will be eventually brought within the reserve area, and all of which are managed and worked for the benefit of the people, of their cattle, and of

the public revenue. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and as yet few private, and no communal, forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special license. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use, free of charge; inside the reserves, only persons specially licensed are allowed to extract timber or other produce on payment of fees. Forest revenue is raised by royalties on, or by the sale of, timber or other produce, and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and other minor forest produce. Some of the better-managed Native States, such as Mysore, Travancore, and Baroda have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue; Kashmir is now adopting the same policy, Mysore has more than trebled its forest revenue since the country was restored to the Native Rule, in the year 1881. Forests.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure, being compiled from administrative returns for the year ending in June, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts for the year ending in March 1899.

In Bengal, at the end of the year, the area of reserved and protected forests were 5,881 and 3,816 square miles, the latter figure showing an increase, owing to the inclusion of forests in the Angul district. Working plans had been sanctioned by the end of the year for 4,425 square miles of forest, and were being compiled for 293 square miles; there was, therefore, an area of 4,967 square miles of reserved or protected forests for which they have still to be made. The year 1898–99 was favourable for natural reproduction, and the area of plantations and nurseries rose to 6,380 acres. Attempt was made to exclude fire from 2,089 square miles, and the effort succeeded over 98 per cent. of that area. The yield of the forests rose under all heads, timber from 4,905,000 cubic feet to 6,420,000 cubic feet, and other produce in a less proportion. Of fuel, 32,249,000 cubic feet were extracted, the number of bamboos was $20\frac{3}{4}$ millions, and the minor produce, including grazing, was valued at nearly £20,000. The sales of railway sleepers from the Singbhum forests ceased during the year, but the general prosperity of the country, especially in the Sunderbans, was such as to cause the above increase in the output. The financial results, if the amounts received for the sleepers in former years are eliminated, were equally favourable, the surplus for the financial year 1898-99 being £32,400. A difficult question, which is receiving attention, is the regulation of grazing in protected forests. Bengal.

The reserved forests of the North-Western Provinces and Oudh rose from 3,851 to 4,005 square miles in 1898–99, including 152 square miles of leased forests; there was also an area of 9,249 square miles of protected forests under the Forest Department at the end of the year. Satisfactory progress was made in the preparation of working plans, and only 163 square miles remained to be taken in hand. The question of the forest policy in the provinces has been carefully investigated in recent years, and steps have been taken to bring it into full accord with the prescribed principles of management. Protection from fire was attempted over 3,082 square miles, or three-quarters of the forests, and it was successful over 96 per cent. of that area; the year was not a good one for these operations. The yield of the forests was 4,086,000 cubic feet of timber and 10,858,000 cubic feet of fuel, about 7 per cent. and 45 per cent. respectively in advance of the yield of 1897–98. The forest receipts were £110,000, and the expenditure was £63,600, leaving a surplus of £43,100, compared with a surplus of £34,100 in the previous year. North-Western Provinces and Oudh.

At the end of 1898–99 the reserved forest area of the Panjab was 3,019 square miles, besides 4,724 square miles of protected and unclassed forests, Panjab.

FORESTS.

a large area in Shahpur having been added to the reserves for administrative purposes. The survey of the reserved Himalayan and other forests was continued during the year. A working plan for the Kulu forests received sanction, and seven others were in different stages of preparation. The year, on the whole, was favourable as regards forest fires, and the only division in which they raged to any extent was Rawalpindi; the area burnt was ·7 per cent. of the total area under the Forest Department, the number of fires falling from 366 to 311. Natural reproduction was generally good, excepting in Kulu, where deodar seed was badly attacked by insects. The area of regular plantations remained at 696 acres, as in 1897–98, but the area under cultural operations rose from 3,951 to 5,056 acres. The total yield of the forests for the year was returned at 3,238,000 cubic feet of deodar and pine timber and 32,059,000 cubic feet of firewood, or nearly 11 per cent. more timber, and about 7 per cent. more firewood than in 1897–98; over 27¼ millions of cubic feet of timber and fuel were removed by free-grantees and right-holders without charge, 5 millions were worked out by Government agency, and 1¾ millions by purchasers. The total forest revenue of the year was £97,000, against an outlay of £60,000, yielding a surplus of £37,000, as compared with £25,000 in 1897–98.

Burma.

The system under which the Burma forests are worked came under reconsideration during the year. The monopoly of teak extraction in defined areas is granted to contractors, who pay a tonnage royalty, and become the owners of the timber extracted. There are also departmental contractors, who work on behalf of the Government. It was decided that the system should be continued. An addition of 962 miles was made to the reserved forest area during 1898–99, bringing it up to 15,669 square miles. It is in contemplation to include a further area of over 1,100 square miles of the Shan States in the reserves. The privilege of cultivating hill gardens has been secured to forest tribes over 478 square miles of the reserved forests. A survey of India party was at work, and completed a large amount of traverse survey, and detail survey on the 4-inch scale was also in hand in several districts. The preparation of working plans made good progress. Fire protection operations were attempted over 3,157 square miles, and were successful in 77 per cent. of that area; special efforts were to be made to prevent fires in the ensuing year. The plantations, chiefly teak, now cover about 87 square miles, 3,969 acres having been added during the year. The quantity of teak extracted by the principal lessees from the forests held by them under the system above described fell from 257,500 to 199,300 tons; and, besides this, over 200,000 tons were taken out by Government agency or by purchasers. The total of teak exports from Burma were 268,300 tons, compared with 273,400 tons in 1897–98, and the average value per ton is stated at £5¾, compared with £6 in that year. The forest receipts were £557,000, and the expenditure was £157,000, leaving a surplus of £399,000, which was 45 per cent. above the average surplus for each of the last five years. The advance was due partly to an increase in the cutch licenses but mainly to the larger amount of timber of all kinds removed from the forests.

Central Provinces.

The area of reserved forest in the Central Provinces was 19,115 square miles, of which 12,848 square miles were at the end of the year 1898–99 classed as A. or permanent reserves, and 6,082 square miles were classed as B. reserves. The B. reserves are available either for eventual transfer to the A. class, or for possible extensions of cultivation in future years. The Forest Survey parties turned out 1,780 square miles of detailed survey, leaving a balance of 4,798 square miles still to be done. The whole of the Northern Circle was being managed in accordance with provisional working plans and in the Southern Circle plans have been finally sanctioned for 67 per cent. of the area. Fire was excluded from 92 per cent. of the 5,484 square miles over which special fire protection was attempted, and from 85 per cent. of that protected. Natural reproduction was good in the Southern Circle, but indifferent in the Northern, owing to the attack of the teak-defoliating moth. No regular plantation work is attempted in the Central Provinces, but efforts are being made to induce villagers to plant groves, especially of sandal trees. The number of animals grazed in the forests was 1,950,000, of which 5,500 only

were allowed into the forests without fee, as the year was not one of famine. The amount of timber and fuel removed from the forests by purchasers during the year was 11,651,000 cubic feet, as compared with 11,469,000 in 1897–98. Departmental operations were much larger than in that year, but the amount issued by free grant fell from 1,602,000 to 520,000 cubic feet. The forest revenue of the year was £66,200, against an expenditure of £57,500, leaving a surplus of £8,700, compared with a deficit of £1,400 in 1897–98. FORESTS.

The State forests in Assam are reserved forests and unclassed State forests, the latter including lands recently cultivated and all lands at the disposal of the State not included in reserved forests. A decrease of 53 square miles occurred in the area of reserved forests, which stood at 3,537 square miles at the end of the year, while the area of unclassed forests was 26,673 square miles. Three of the reserved forests are worked under sanctioned working plans, but for the rest, yearly plans of operations are drawn up; the plans were carried out except in some cases when the demand for timber was too weak. Fire protective measures extended over 1,204 square miles, and were almost completely successful. A large portion of the produce of the forests consists of sal trees (*shorea robusta*); there are also plantations of rubber trees, some of which were tapped experimentally during the year with good results. The total of timber and fuel sold to traders from all the forests during the year was 19½ millions of cubic feet, against 16¾ millions in 1897–98, and the revenue from other products was 5 per cent. higher than in that year; the forest surplus rose from £5,700 to £7,900. Assam.

Nearly a quarter of the total area of Berar is classed as State forests, which in 1898–99 covered 4,175 square miles, including 1,555 square miles of timber and fuel reserves, 89 of fodder and thatching grass, and 2,531 of pasture. The forests yielded 474,000 cubic feet of timber, which was 121,000 cubic feet more than in 1897–98, and the out-turn of fuel rose by 36 per cent. and that of bamboos by 40 per cent. Working plans are complete for 725 square miles, and are in hand for 371 square miles, while the residue is worked at present under provisional plans. The season was favourable to forest fires, and protection was consequently more difficult, the area of success being 96 per cent. in place of 99 per cent.; considering the difficulties, the result is considered very satisfactory. The surplus receipts were £12,700. Berar.

Areas amounting in all to 1,113 square miles were added to the reserved forests of Madras, owing chiefly to the transfer of 1,015 square miles from the reserved lands. The net result is an increase of 341 square miles in the reserved area at the end of June, 1899, so that now includes nearly 38 per cent. of the unoccupied area of the presidency. Two parties of the Survey of India were employed during the year, and covered 986 square miles of forest reserves, while 1,573 miles of permanent demarcation were completed. Protection from fire was undertaken over 5,126 square miles, and was successful in 96 per cent. of that area. The year was favourable for natural reproduction, and the coppice growth was excellent. The timber plantations consist of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast. The yield of the forests according to the returns was 2,676,000 cubic feet of timber, and 13,380,000 cubic feet of fuel, besides 26 million bamboos and other minor produce; the timber out-turn was rather larger, and the fuel out-turn considerably larger, than in the previous year, but the number of bamboos was less. The value of the timber and other produce removed by purchasers fell from £107,900 to £101,200; the total receipts were £138,300, which was rather less than in 1897–98; and the surplus was £32,000. Madras.

At the end of the forest year 1899 the area of the reserved forests in Bombay was 12,748 square miles, besides 1,514 square miles of protected forests. A party of the Survey of India continued its work in three forest circles of the Presidency, and completed 677 square miles of detail survey and 164 miles of traversing, besides triangulation over 718 square miles. In each of the forest Bombay.

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circles permanent working plans were being prepared; while further progress was made with the demarcation of the forest into compartments for working in rotation. There was no sensible improvement respecting the frequency of forest fires, while in Sind the area burnt was nearly six times that of 1897-98. Considerable progress was, however, made in fire conservancy measures. Natural reproduction was satisfactory in all circles except in Sind, where a low inundation and scanty rainfall retarded growth. The total expenditure amounted to £125,000, and left a surplus of £29,000, the central circle only showing a small deficit on the year's working. The forest surplus in 1897-98 had been £37,000.

Coorg.

The area of reserved forests in Coorg was 238 square miles, as in 1897-98, besides 648 square miles of other forests; the chief timbers are teak and sandal-wood. The greater part of the Coorg reserves is now under regular working plans, of which one received sanction during the year, while plans for three forests and for the sandal wood forests were under prepartion during the year. The number of fires fell from 32 to 23, covering an area of 6,000 acres. There was a decrease in the quantity of timber removed from the forests, which amounted, including all the forests, to 169,000 cubic feet, compared with 241,500 cubic feet in 1897-98. The quantity of sandal wood extracted from the forests was 143, as compared with 58 tons in the previous year. The forest surplus rose from £2,900 to £5,000.

CHAPTER IX.

AGRICULTURE AND MINERAL RESOURCES.

AGRICULTURE.

In every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture, and for the improvement of stock. The Agricultural Departments also keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract.

The following table is intended to show what are the staple crops of each province, as given in the returns for 1897–98; in cases in which the percentage is less than one, the column has been left blank, and in all cases fractions have been neglected :—

Province.	Total Crop Area.	Percentage of the Crop Area of each Province under										
		Food-Grains.						Oil-seeds.	Sugar.	Cotton.	Jute.	Indigo.
		Rice.	Wheat.	Barley.	Millets and Maize.	Gram.	Other.					
	Acres.											
Upper Burma - - -	3,007,805	45	—	—	25	2	5	13	—	4	—	—
Lower Burma - - -	6,479,253	91	—	—	—	—	—	—	—	—	—	—
Assam - - - -	2,472,734	65	—	—	—	—	2	7	—	—	—	—
Bengal - - - -	65,795,700	61	3	2	5	2	8	6	2	—	3	1
North-Western Provinces	29,471,005	14	15	12	18	12	14	2	3	3	—	1
Oudh - - - - -	10,757,831	22	14	12	12	11	21	2	2	—	—	—
Punjab - - - -	25,810,142	3	30		25	10	8	4	1	4	—	—
Sind - - - - -	4,064,601	22	14	—	38	2	5	12	—	2	—	—
Bombay - - - -	24,312,877	7	6	—	55	2	12	6	—	9	—	—
Central Provinces - -	16,525,231	24	13	—	14	5	21	11	—	4	—	—
Berar - - - -	6,653,884	—	6	—	45	3	5	6	—	32	—	—
Madras - - - -	27,212,085	25	—	—	33	—	21	6	—	6	—	1

Particulars as to the relative distribution of the area under each staple among the various provinces are given below under the heading "Agricultural Produce." Of other crops, not mentioned in the above statement, occupying a small area, but of great value, Bengal grows a large quantity of opium, tea, tobacco, and garden produce; Assam of tea; the North-Western Provinces and Oudh of opium; Madras of tobacco and garden produce; and the fodder crop of the Punjab covered 4 per cent. of the crop area.

The following provincial details refer, unless it is otherwise stated, to the year 1898–99, and therefore differ frequently from the particulars given in the Land Revenue part of this statement, where the year under discussion is in several cases an earlier one.

Bengal.

The season of 1898–99 in Bengal was generally very favourable, both in the case of the autumn and of the spring crops. Exceptionally heavy rain fell in August and September, and the average fall throughout the province for the year was in excess of the normal. The area under autumn crops was 16¼ millions of acres, or 3 per cent. higher than in the preceding year; and nearly 15 millions were sown with spring crops, against 14⅔ in 1897–98; this included 996,000 acres under sugar-cane, against 974,000 in 1897–98, and there was also an increase in the acreage under wheat, which amounted to 1,600,000 acres. The out-turn at both seasons was a full crop, the autumn

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crop being well above the average. and the only serious damage suffered having been caused in North Behar by floods in September. The autumn crops of 1899 were not so satisfactory, and are estimated to yield 67 per cent. of a full normal out-turn.

At the Botanical Gardens at Calcutta special attention was, as usual, given to plants of economic importance, numbers of rhea, rubber, and other useful plants being distributed. The Superintendent has been engaged in a botanical examination of various leguminous plants, but the results have not yet been published. Many other investigations relating to soils and crops were carried out through local officers, and referred to the Reporter on Economic Products, who also published a revised pamphlet on the cultivation of rhea. Inquiries as to the sugar industry appear to show that the importation of foreign sugars reduced the price of refined sugar in the Indian market, and seriously affected the Indian sugar refining industry, but that the price of unrefined sugar did not fall, and the area under sugar-cane was not diminished in the past few years.

At the experimental farms on the Burdwan and Dumraon estates, and at the Sibpur Government farm, experiments were continued with different kinds of manure, with selected and imported seed, and with different methods of cultivation. The Sibpur farm has been converted into a demonstration farm for the agricultural classes at Sibpur College; it was not suitable for an experimental farm. On the Dumraon farm experiments with wheat were continued; four Central Provinces varieties which had been grown in previous years, were excluded owing to their great liability to attack by rust. There was an outbreak of this pest on the farm during the year, chiefly confined to two of the six varieties grown. Agricultural experiments are also undertaken or encouraged on many Government, Wards', and private estates throughout Bengal.

A fresh scheme was inaugurated by the silk firms of Murshidabad, the centre of the silk industry in Bengal, for the more general adoption of Pasteur's system of silkworm rearing. It received assistance from the Government, and made a favourable commencement in 1898–99, several rearers having learnt this scientific method, chiefly by the agency of scholarships offered at the Rampur Boalia Industrial School. It is hoped that the devastations caused by pebrine and muscardine may thus be checked, and that these diseases may eventually be wholly eradicated.

There is no land record staff in Bengal, but in the tracts which are not permanently settled, and which have been cadastrally surveyed, a considerable amount of statistical information is available as to cultivation, stocks, and crops. Reference has already been made, in the Registration chapter of this statement to the working of the Bengal Land Records Maintenance Act of 1895.

North-Western Provinces and Oudh.

The agricultural year 1897–98 was very favourable in the North-Western Provinces and Oudh, and two remarkably good crops were harvested, which did much to accelerate the recovery of the population after the preceding bad seasons. The monsoon of 1898 was also good, although it was weak in September, and the result was a good autumn harvest, which was, however, not quite up to the level of that of 1897. The total area under crops in 1897–98, 29¼ millions of acres, was higher than it had been since 1894–95, when the area was 31 millions of acres; 4½ millions were under wheat, 4⅛ millions under rice, 3½ millions under barley, and 8½ under pulse. Prices of food grains had by June 1898 regained their normal level. The agricultural statistics of the year were filed by the 29,500 village accountants under the control of the Land Records Department, of whom 85 per cent. had passed through school courses, while many of the remainder had been specially exempted.

At the Cawnpore Agricultural Station experiments were conducted which seem to show the special value of nitrogenous manures for maize and wheat, or of a leguminous crop preceding a crop of wheat; some of the varieties of American cotton appeared to have deteriorated; American rust-proof wheat was tried, and escaped an attack of rust which prevailed in the neighbourhood. The Meerut farm, the management of which was taken over by the District Board in April 1898, was made a centre for the distribution of improved seed, and was also used for manure experiments and for the maintenance of a small

stud of stallions and a bull. On three tracts, the soil of which is damaged by saline efflorescence experiments were continued with some success, as it has been found that valuable trees can be cultivated by the use of deep holes filled with a better soil; broadcast sowings, however, were generally unsuccessful. Dairy experiments are now left entirely to private industry, and the Government dairy farm at Cherat, in the Aligarh district, has been sold. AGRICULTURE.

The monsoon rains of 1898 in the Punjab were not so good or so well distributed as those of 1897, and sowings for the autumn crop were delayed in consequence; the September rainfall was also deficient, so that the ploughing for the spring crop was retarded, and the subsequent climatic conditions were unfavourable to the spring harvest. The area of crops harvested was 20¾ millions of acres, as compared with 25⅘ millions in the good year 1897–98 and an average of 22⅔ millions in the 10 preceding years; 9¼ millions of acres were under autumn crops, while spring crops were taken from 11½ millions of acres, of which nearly 5⅞ millions were irrigated by canals, tanks, or wells. Punjab.

Colonisation on the Chenab Canal, the extension of the Western Jumna and Sirhind Canals, and construction of new canals elsewhere, have resulted in the following increase of the area irrigated by Government canals during recent years:—

	Acres.		Acres.		Acres.
1892–93 -	2,550,441	1894–95 -	2,567,982	1896–97 -	3,733,267
1893–94 -	2,523,378	1895–96 -	3,161,008	1897–98 -	4,395,453

The average "cultivated area" of the last five years, including current fallows, is 27 millions of acres, compared with an average of 25¾ millions for the previous quinquennial period; deducting areas which were fallow, or on which crops failed, and adding the area cropped twice, the average area of crops gathered is 23¼ millions of acres in the earlier period, and 22¾ millions in the last five years, in spite of the disastrous failures of crops in the years 1895–96 and 1896–97.

The number of village accountants employed under the Land Records Department was 8,350, practically all of whom have passed the prescribed examination. It is again reported that the standard of work is rising, and that there is a tendency towards improvement in the *morale* of the men. Records of rights were under preparation in Muzaffargarh and in some other limited tracts, and crop abstracts were filed with fair punctuality.

Trials of American corn were continued during the year; the sowings were made in April, and the average out-turn was considerably higher than in the previous year. Palestine wheat also gave a better yield, though it was still far below that of five years ago. Experiments with young fruit trees were in progress in the Government Agri-Horticultural Gardens, and a good measure of success was attained, though more time is required for definite results.

The monsoon of 1898 was a plentiful one, the rainfall in many districts being above the average; the falls of August and September were heavy and continuous, especially in some of the northern districts. But during October and until February rain was deficient, and the season was therefore unfavourable for the spring crops. The crop area rose from 16½ to 17 millions of acres in 1898–99, and of this 654,000 acres were irrigated from tanks and wells. In the famine year, 1896–97, the area irrigated was 790,000 acres. Rice occupied about five millions of acres in 1898–99, although the ground lost in the famine in this respect had not yet been made up. The same may be said of wheat, which occupied 2½ millions of acres; the out-turn of wheat was not good. In spite of the improvement in the area cropped, it was still considerably below the figures of the years 1892-93 and 1893–94, in which the crop areas were 17¾ and 18⅛ millions of acres respectively. Central Provinces.

Experiments were continued at the Nagpur farm, but unfavourable weather prevailed, and the results were not important; the chief crop grown was wheat. The agricultural class is filling well, and with the right kind of students.

The revision of the Land Records arrangements in the Central Provinces was by the end of September 1898 fairly complete in all districts but one, for which

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preliminary proposals were under consideration; the circles allotted to the accountant surveyors (*patwaris*) have been arranged; each village officer of this rank has to reside and hold an office in his circle; the inspectors (*kanungos*) have also been organised and have been made to reside within their charges. The reports on the working of these village officials are fairly satisfactory, though the list of fines and other punishments for neglect of their duties is still a large one.

Burma.

The rainfall of 1898-99 showed a deficiency towards the end of the season, both in Upper and in Lower Burma, but the latter division of the province suffered most. The area under crops in Lower Burma rose, partly in consequence of the preceding favourable season, from 6½ to 6⅝ millions of acres, of which over six millions were under rice. The yield of rice was rather disappointing, owing to the early cessation of the rains; prices rose in the middle of the year, but declined considerably before its close. The total exports of rice from Lower Burma were 1,819,000 tons in 1898, and 1,377,000 tons in the first ten months of 1899; but the former figure was exceptionally high, the average of the ten years 1889–98 being 1,342,000 tons. In Upper Burma the harvest was, on the whole, an average one, and the price of rice was everywhere low. The potato industry in the Southern Shan States continued to thrive, but the attempt to grow wheat there has not as yet met with much success. Experiments have been made in growing American tobacco, but without much success.

The Land Records Department in Lower Burma has recently been reorganised and increased, and it has now been decided to apply the system to Upper Burma, which will necessitate a further increase of the staff. For admission to the lower grade of the department a certificate is required, to be obtained at one of the survey schools, and a practical surveying course is also necessary.

Assam.

In Assam the rainfall of 1898-99 was below that of the previous year, but it was above the average in the Brahmaputra Valley. Both early and late rice turned out well, the latter being a bumper crop. The cotton crop was about the average, but the outturn of tea was not satisfactory. Prices of food grains fell generally. The area under crops in 1897-98 was about 2½ millions of acres, of which two-thirds were under rice.

At the newly started Shillong experimental farm, a large variety of crops were grown, the chief results of the year being the successful conversion of the wild hill grasses into useful silage. The soil, however, was too poor for success with most of the crops tried. Other noteworthy experiments were the cultivation of a patch of rhea on a tea estate at Golaghat, and of jute and sisal hemp on other estates.

The number of village officials under the Land Records Department was 1,139, and although there are various defects it is considered that the fundamental objects of the system are being attained with fair success. Cadastral maps and land records are maintained in spite of the shifting of cultivation so prevalent in the province. Satisfactory progress is being made in the introduction of a system of inquiry into and tabulation of agricultural conditions. The number of pupils who gained certificates during the year 1898-99 at the three survey schools was 132, the highest in the last 10 years; of the total number of village officials given above, 1,031 have obtained certificates of qualification in surveying.

Madras.

The season of 1898–99 was generally favourable for agriculture in the Madras Presidency, with the exception of parts of the Deccan districts, where deficient rainfall caused partial failure of crops. The crop area, excluding permanently settled estates and those held on exceptional tenures, rose from 26 to 26½ millions of acres, the latter figure being above the average of the previous five years. The area of irrigated land under cultivation was five millions of acres. The rice crop, covering 6$\frac{1}{10}$ millions of acres, gave a good yield, equal to the normal. Owing to the good harvest, and to the cessation of the abnormal exports of grain, the prices of food grains fell generally, though they were still above the average of the ten years, 1881–90. The advances to agriculturists for improvements or the purchase of fodder and

cattle amounted to £81,800, and the outstanding Government loans for these purposes were about £311,000 at the end of the year. AGRICULTURE.

The Land Records Department maintained survey schools in nearly all the subdivisions of 19 districts of Madras, and 10,054 village accountants were instructed in the surveying and demarcation of fields; while 607 out of the 634 revenue inspectors in the province have also been trained to survey lands and correct land records. The work of the Department was increased by the inspections in connection with famine operations in part of the Nellore district. The village statistical register books for the revenue year 1897-98 were prepared and checked everywhere except in part of North Arcot. A proposal was made during the year to establish eight experimental farms in the presidency, and two were to be started as early as possible. The farm at the Saidapet Agricultural College is maintained for educational and not for experimental purposes. Experiments were conducted in various parts with the sisal hemp plant. Sugar cane disease was investigated, and a large quantity of fresh ground-nut seed imported, as it was thought that the indigenous seed had deteriorated. At the Saidapet College there were 46 students, and the course consisted of lectures in agricultural science, field work, and of veterinary instruction. The question of agricultural education received much attention during the year.

The rainfall in Bombay was, on the whole, sufficient, and crops were generally about normal; but in Sind the inundation was very bad, and there was an almost entire failure of crops in areas where there were no canals. The area sown with crops in 1898–99 in the Presidency proper was 24,689,000 acres, of which 47 per cent. was under millet, and 18 per cent. under non-food crops. The chief alterations as compared with the year 1897-98 were increases of 32 per cent. in the area under wheat, and of 19 per cent. in the area of cotton, while the millet area fell 7½ per cent. Prices relapsed to a low level in almost every case. The irrigated area, 3,419,000 acres, was rather smaller than in the less favourable year preceding; it consists chiefly of lands in Sind irrigated by canals, but 561,000 acres were irrigated from wells in the Presidency proper. Bombay.

At the Poona demonstration farm the season was, on the whole, favourable though the rainfall was light. Experiments were conducted with various fodder crops, with Egyptian cotton, the seedlings of which were destroyed by a heavy rainfall, indigenous varieties being unharmed, and with rhea, the cost of growing and preparing which appeared to be so heavy that it is doubtful whether the crop can be profitably introduced into the Deccan. At the Surat farm experiments as to rotation of crops were continued, and striking results were obtained in the prevention of fungoid disease in cereals by steeping the seed in sulphate of copper or in hot water. A large number of other experiments were also made, both at these farms and by revenue officers in the several districts.

Government loans to cultivators for permanent improvements and the purchase of seed and cattle amounted to £55,500, or £98,500 less than in 1897-98 as the famine conditions which necessitated the large grants in the two preceding years no longer existed; a large portion of the allotments remained unutilised for want of applicants. Of the amount advanced, £22,500 was for purchase of seed and cattle, and £32,500 for permanent improvements. The Government report that the advances were generally found to have been utilised for the purposes for which they were granted.

The rainfall in 1898–99 was short for the third successive year, being 28 per cent. below the average of normal years; it was, however, satisfactory in the beginning of the year, and the autumn crops, on the whole, did well; the spring crops were not good, and considerable distress was caused by the scarcity of drinking water in most districts. Cotton yielded very well, and millet, the chief food staple, gave a good crop. Prices of food grains fell to a low level, so that in spite of the good harvest the year was not a prosperous one for cultivators, and probably little was done by them in the reduction of debt. The voluntary sales of land were still nearly as high as in 1897–98, though the average price fell from 21 times to 16 times the amount of the assessment. The area under crops was 6,787,000 acres, of which 39 per cent. Berar.

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was under millet, 36 per cent. under cotton, and 15 per cent. under spring crops, wheat, oil seeds, and pulses. The food stocks in the province were estimated to have increased considerably, owing to the low selling prices, and the stock of millet was 33 per cent. higher than in 1897–98.

HORSE-BREEDING, AND VETERINARY COLLEGES.

The improvement of the breeds of horses, ponies, mules and cattle, the prevention of disease, and veterinary instruction, are in charge of the Civil Veterinary Department, which consisted during the year of 19 officers, with a considerable number of veterinary assistants; these latter it was in contemplation to form into a subordinate veterinary establishment. Operations are carried on throughout India, but chiefly in Northern India, which is most favourable for horse-breeding; their objects are the provision of remounts and mules for military purposes, and the preservation and improvement of native breeds of horses and cattle. For the first of these objects the Government of India imports and maintains horse and donkey stallions, and registers are kept of mares suitable for producing useful remounts. For the second object stallions are kept by provincial governments, local authorities, and private individuals; investigations into cattle and equine diseases are carried on, both locally and at the Imperial Bacteriological Laboratory at Muktesar; and numerous veterinary dispensaries are maintained by the provincial governments. The following paragraphs give particulars for the year under various heads:—

HORSE-BREEDING.

The number of Government horse stallions was 390, of which 344 stood at stud during the year; but besides these there were at stud 86 horse stallions and 112 pony stallions, chiefly Arabs, belonging to provincial governments or others. The Government of India imported 13 stallions from England and nine from Australia; three Australians and 21 Arabs were bought by the Government in India. At the end of the year there were 131 Arabs, 58 Norfolk trotters, 98 English and 47 Australian thoroughbreds.

The number of stock got by Government stallions during the year, so far as is known, was 3,892 horses and 3,382 mules, but in each case the result of a large proportion of coverings is not known. The Army Remount Department purchased 1,763 horses or 196 less than in 1897–98; it is being abundantly proved that the produce of thorough-bred sires is best for army purposes.

Mule-breeding.

The number of donkey sires bought by the Government of India during the year was 67, including 11 imported from Spain and 51 from Cyprus, whence a good yearly supply is obtainable. The number in the possession of the Government was 406, of which 332 were at stud during the year, besides 23 owned by provincial governments and others. Of the Government donkey stallions, 173 were Italian, 99 Cyprian, 26 Spanish, and 27 Persian; attempts are being made to improve the native breeds of donkeys for mule-breeding purposes. In addition to the above, a considerable number of horse and donkey stallions are kept by Native States.

Of mules 290 were purchased by the Department as ordnance or baggage mules and 1,281 for transport. The exceptional requirements of the previous year, due to the Frontier expedition, had constituted a serious drain on the mule supply, and the full number required in 1898–99 for ordnance purposes could not be made up. Effort is being made to extend mule-breeding in every part of India where it is likely to be a success.

Cattle-breeding.

With a view to improve native breeds of cattle, bulls are kept by local authorities in many provinces, but a great deal remains to be done, as the importance of the subject is not yet fully recognised, either by breeders or by local authorities. The Civil Veterinary Department have been investigating the requirements of each district, in order to find the proper means for improving

local breeds. The Hissar Cattle Farm has been placed under the management of the Department, and much is expected of the improved bulls which will be sent thence to suitable localities; but the primary object of the farm will be to produce suitable siege train bullocks, and local authorities will rely principally on well bred bulls locally purchased. The system recommended is, that indigenous bull calves should be bought by the district boards, and after being well fed up, turned out in absolute freedom among the herds at 3½ years old. HORSE-BREEDING.

The horse and mule shows of the year are reported to have been, on the whole, successful. The number of animals shown was, for most of the shows, about the same in the previous year; but the number competing for prizes rose from 11,861 to 13,784, which points to an improvement in the class of animals shown. The number of remounts purchased at the fairs was 978, at an average price of Rs. 228, and of mules purchased by Government 238, at an average of Rs. 117. There is a large trade in horses and mules apart from Government requirements. The cattle fairs on which report has been made showed in most cases an improvement in the class of animals, and a good number of exhibits. Horse and cattle fairs.

The Glanders and Farcy Act was amended during the year, with a view to giving inspectors fuller powers of search in cases of suspected horse disease, and also extending the operation of the Act to other diseases of horses. Glanders was very prevalent during the year in the Punjab, and cases occurred in Calcutta; it is being stamped out in Bombay, where it has in past years prevailed; the North-Western Provinces were fairly free from it. There was a recurrence of "surra" outbreaks in Bombay. There is a considerable amount of cattle disease, especially in the North-Western Provinces, in Madras, and in Assam; but the year was not a specially unhealthy one. Much is being done, though much remains to be done, in the investigation of cattle disease. At the Imperial Bacteriological Laboratory at Muktesar, as elsewhere throughout India, experiments on the rinderpest disease were in progress; the preparation of various bacterial antitoxins was undertaken; the question of the supposed identity of the "surra" and the tsetse fly diseases received attention; and other inquiries were instituted, including one into a fungus alleged to be fatal to locust swarms. There were 16 veterinary dispensaries in the Punjab, 11 in Bengal, where the system was much extended, 6 in the Central Provinces, 15 in Bombay, and two in Berar. The number of cases treated was 48,428. In addition to these, there is a large staff of veterinary assistants, who during the year visited 32,124 villages and treated 165,844 animals. Horse and cattle disease.

In Bengal the veterinary school was during the year raised to the status of a college, with a three years' course; all the 15 second-year students who presented themselves for examination were successful; it is expected that the extra year's instruction will be of great advantage. At the Bombay College 15 students came up for the final examination, and eight passed. The Lahore school showed more satisfactory results, 36 having passed out of 44; at the Rajputana school 18 out of 24 passed. At the Burma school 16 Burmans, 6 Shans, and 8 Karens received instruction. These institutions supply not only the needs of India, but also, in recent years, those of the Uganda Railway, which has taken eight qualified men. The systems of education differ materially at the different colleges, and are considered to need some modification; with this object it has been suggested to summon a conference to discuss the matter. Veterinary instruction.

AGRICULTURAL PRODUCE.

The following figures are extracted from the annual returns of agricultural statistics of British India, and relate to the year 1897–98; they include figures for Bengal which must for the most part be regarded as estimates; the estimates of irrigated area and of number of stock in that province are mere AGRICULTURAL PRODUCE. Agricultural Statistics.

AGRICULTURAL PRODUCE.

approximations. The Bengal uncultivated area has been separated this year for the first time into three classes as in other provinces :—

	Acres.	Acres.
Total area according to Survey	—	733,000,000
Deduct feudatory and tributary States	127,000,000	
Deduct area for which no returns exist	64,000,000	
		191,000,000
Net area	—	542,000,000
Forest areas	65,000,000	
Area not available for cultivation	138,000,000	
Culturable waste other than fallow	106,000,000	
Current fallows	37,000,000	
		346,000,000
Net area yielding crops during year 1896–97	—	196,000,000
of which bore two or more crops during the year	—	27,000,000
Total crop area	—	223,000,000
Total irrigated area (including 6,000,000 acres estimated for Bengal)	—	37,000,000
Area of rice crop	71,000,000	
Area of millet crops	46,000,000	
Area of wheat crop	20,000,000	
Area of gram crops	10,000,000	
Area of barley	8,000,000	
Area of other food grains, including pulses	27,000,000	
Area of orchard, garden, and miscellaneous food crops	5,000,000	
Total of the above food crops	—	187,000,000
Area of sugar	—	2,800,000
Area of tea, coffee, spices, and condiments	—	1,500,000
Area of oil-seeds	13,000,000	
Area of cotton	8,900,000	
Area of jute and other fibres	2,700,000	
Area of indigo	1,400,000	
Area of poppy (opium)	600,000	
Area of tobacco	1,000,000	
Area of fodder crops	2,300,000	
Area of other non-food crops	1,800,000	
Total of non-food crops	—	31,700,000
Number of cattle (including 25 millions estimated for Bengal)	—	102,000,000
Number of sheep and goats (including 6 millions estimated for Bengal)	—	39,000,000
Number of horses, ponies, mules, and donkeys (including 300,000 estimated for Bengal)	—	2,500,000

The total area on which crops were sown, and the area cropped more than once, is returned for the last five years thus :— AGRICULTURAL PRODUCE.

	Millions of Acres.					
	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
Total area of crops sown - - - -	221	225	224	214	209	230*
Including area cropped more than once -	25	28	27	25	23	27

* The figures for 1897-98 exceed those given on the preceding page, because they include the area on which crops failed to come to maturity.

Regarding some of the more important staples of Indian agriculture, a detailed account of the crops of 1898-99 follows.

The ascertained and estimated area under wheat is given thus :— WHEAT.

	Average Wheat Area for preceding Five Years.	Areas Cultivated with Wheat in	
		1897-98.	1898-99.
	Acres.	Acres.	Acres.
Punjab - - - - - - -	7,362,800	8,013,800	7,729,200
North-Western Provinces and Oudh -	4,352,900	4,537,400	4,840,800
Bengal - - - - - - -	1,483,700	1,569,500	1,594,600
Central Provinces - - - -	3,245,100	2,171,700	2,521,500
Bombay - - - - - -	2,282,800	2,004,800	2,138,800
Sind - - - - - -	506,200	591,600	352,100
Berar - - - - - -	787,900	390,400	436,400
Rajputana* - - - - -	1,295,600	1,183,200	1,109,200
Central India* - - - - -	1,493,300	1,212,800	1,277,500
Hyderabad and Mysore - - -	1,125,800	1,096,000	1,200,500
TOTAL - - -	23,936,100	22,771,200	23,200,600

* Excluding some Native States from which no reports have been received.

The season was favourable for the growth of wheat in the North-Western Provinces and Oudh and in Bengal, but the yield in other provinces was not good; the yield of the last two years in the principal wheat-growing provinces is given in the margin. The total yield for all India is estimated at 6,209,000 tons, compared with 6,655,300 tons in 1897-98. Prices remained at a high level for some part of 1898, and the exports of wheat were much larger than they had been since the Russian famine swelled the demand in 1891. Wheat exports of recent years are as follows :—

	1898.	1899.
	Tons.	Tons.
Bengal - - - -	593,000	667,000
North-Western Provinces and Oudh.	1,774,000	1,809,000
Bombay and Sind - -	805,000	734,000
Punjab - - - -	2,359,000	1,978,000
Central Provinces - -	543,000	459,000

1,053,000 tons in	- -	1885-86	
689,000 „	- -	1889-90	
1,515,000 „	- -	1891-92	
345,000 „	- -	1894-95	
500,000 tons in	- -	1895-96	
95,000 „	- -	1896-97	
120,000 „	- -	1897-98	
976,000 „	- -	1898-99	

AGRICULTURAL PRODUCE.

Since the spring of 1899 London prices have receded to their previous low level, and famine has recurred throughout a large tract of Central India, so that the export for the year 1899–1900 is small. The area sown with wheat for the 1900 harvest was very restricted, being only 64 per cent. of the 1898–99 area in the Punjab, 85 per cent. in the North-Western Provinces, and little more than half in Bombay and elsewhere. Even on this area the yield is expected to be very small, owing to the failure of the rains.

OIL SEEDS.

The area under, and the yield of, the main oil-seeds crops, namely, linseed, rapeseed, and mustard, for all India, may be approximately given thus:—

		Average for preceding Five Years.	1897–98.	1898–99.
Area in acres	Linseed, rapeseed, and mustard.	18,970,000	18,345,000	18,101,000
	Sesamum oil-seeds -	2,900,000	3,028,000	2,959,000
	TOTAL - - -	21,870,000	21,373,000	21,060,000
Yield in tons estimated for all seeds -		1,450,000	1,833,000	1,662,000

The yield of linseed, rapeseed, and mustard was above the average of the preceding five years, but that period included some bad seasons. In Bengal the oil-seeds harvest of 1898–99 was good, but in the rest of India it was at best a poor one, as the weather at the time of sowing was unfavourable, and a full area was not sown. The sesamum yield was about 6 per cent. smaller than that of 1897–98, but it exceeded the five years' average by 16 per cent.; the out-turn was diminished, especially in the Central Provinces and in Berar, by unfavourable weather. The exports of oil-seeds in 1893–94 had been the largest on record, and amounted to 1,211,000 tons, valued at £11,169,000; they were 570,000 tons, valued at £5,342,000, in 1896–97, and 964,000 tons, valued at £7,898,000, in the year 1898–99.

The cultivation of ground-nuts is confined to the Bombay and Madras presidencies. The crop was again a bad one in 1899; the area sown was only 155,000 acres, against 218,000 acres in 1898, and an average of about 335,000 acres for each of the preceding five years. The yield is estimated to be not more than an eighth part of the previous year's crop, being far below that of a normal crop on the area sown. The exports of ground-nuts have fallen as follows in recent years:—

1894–95 -	113,400 tons.	1897–98 -	2,200 tons.
1895–96 -	55,900 „	1898–99 -	4,400 „
1896–97 -	24,300 „		

RICE.

The total normal area under rice in British provinces is said to be about 68,000,000 acres, of which 38,000,000 belong to Bengal, 6,500,000 to Madras, and 6,500,000 to Burma. The total yield of British India in an average year may amount to 28,000,000 tons of cleaned rice. The year 1898–99 was a favourable one in the three principal rice-producing provinces, but the yield of 1899–1900 was not so good, except in Burma. The figures of area and yield compare as follows with previous years:—

AGRICULTURAL PRODUCE.

	Area in Acres.			Yield in Tons of Cleaned Rice.		
	1899–1900.	1898–99.	Average of preceding five years.	1899-1900.	1898–99.	Average of preceding five years.
Bengal	39,070,000	39,605,000	37,980,000	18,617,000	20,292,000	16,873,000
Madras	6,721,000	7,166,000	6,768,000	1,939,000	2,747,000	2,624.000
Burma	6,041,000	5,911,000	5,147,000	2,789,000	2,243,000	2,346,000

The quantity of rice exported from India and Burma beyond the sea in 1898–99 was 1,897,000 tons, or nearly 42 per cent. above the total of the preceding year. More than two-thirds of the exports went from Burma, which also exported 346,000 tons of rice to India. The exports to foreign countries in the first eleven months of 1899–1900 amount to 1,350,000 tons, as they are restricted by the same causes as were in operation in 1896-97 and 1897-98, namely, high prices in India and the diversion of Burma rice to the Indian famine tracts. It is estimated that Burma has this year (1900) an exportable surplus of 1,740,000 tons of cleaned rice.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury £646,000, against £473,000 in the previous year. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy the same or a slightly higher rate of duty on rice exports.

COTTON.

The area under cotton in India is returned and estimated as follows:—

	Average Cotton Area for preceding Five Years.	1898–99.	1899–1900.
	Acres.	Acres.	Acres.
Madras	1,554,000	1,322,000	1,369,000
Bombay, Sindh, and Bombay Native States (estimated)	5,374,000	5,191,000	3,156,000
North-Western Provinces and Oudh	1,335,000	1,151,000	1,199,000
Punjab	1,115,000	789,000	988,000
Central Provinces	644,000	668,000	692,000
Berar	2,163,000	2,476,000	1,984,000
Nizam's Dominions (estimated)	1,587,000	1,738,000	1,292,000
Burma	No estimate available	168,000	161,000
Central India (estimated)	470,000	471,000	478,000
Rajputana (estimated)	540,000	479,000	325,000
Bengal	180,000	168,000	161,000
TOTAL	14,962,000	14,621,000	11,865,000

The decrease in the yield of cotton is estimated to be considerably greater than the above figures would suggest, owing to the disastrous season in the chief cotton-growing areas, Bombay, Berar, Hyderabad, and the Central Provinces. The five years' average is 2,308,000 bales of 400 lbs.; in 1898 the yield was 2,417,000 bales; in 1899 it was 791,000 bales only.

AGRICULTURAL PRODUCE.

The exports of raw cotton from India were—

1894-95 - -	3,387,000	cwts., valued at	£ 5,806,000
1895-96 - -	5,248,000	„ „	9,406,000
1896-97 - -	5,216,000	„ „	8,647,000
1897-98 - -	3,723,000	„ „	5,914,000
1898-99 - -	5,409,000	„ „	7,457,000
1899-1900 (9 months only)	3,456,000	„ „	4,822,000

TEA.

The following is an estimate of the cultivation and the production of tea in India during recent years. Owing to delay in furnishing the full report for the year 1898, the statistics as to the crop of that year outside Assam cannot be given :—

	Area growing Tea, in Acres (Mature and Immature Plants).			Production of Tea in Lbs.		
	1896.	1897.	1898.	1896.	1897.	1898.
Bengal - - -	105,707	128,067		36,652,000	38,951,000	
Assam - - -	291,909	310,550	325,813	109,727,000	107,266,000	109,071,000
Madras - - -	5,270	6,335	Figures not available.	642,000	398,000	Figures not available.
North-Western Provinces -	7,919	7,965		1,774,000	2,043,000	
Punjab - - -	9,830	9,970		2,147,000	2,302,000	
Native States - -	11,444	30,076*		5,182,000	2,546,000*	
Burma - - -	1,201	747		302,000	276,000	
TOTAL - -	433,280	493,710		156,426,000	153,782,000	

* Figures doubtful.

The yield of tea per acre during 1898–99 is reported to have averaged 396 lbs. in Assam, where the season was, on the whole, unfavourable, owing to deficiency of rain. The tea producing industry has been passing through a severe crisis, and the price of Indian tea in the London market was still lower in 1898 than in the previous year, averaging $8\frac{1}{2}d.$, compared with $9d.$ per lb. in 1897. The average price during 1899 is stated in the "Economist" to have gone up to $8\frac{3}{4}d.$ per lb., and the total amounts of the Indian tea crops of the three years, 1897–99, are said by the same authority to have been 148, 154, and 168 millions of lbs. respectively. The consumption of Indian tea in India is about $4\frac{1}{3}$ million lbs., besides 3 million lbs. of China and Ceylon teas. The tea gardens of India employed in 1897 about 560,000 labourers permanently and 102,000 temporarily, or 662,000 labourers in all. The total exports of Indian tea by sea are returned at—

78¾	million lbs. in	1886–87		148¾	million lbs. in	1896-97
107	„ „	1890–91		151½	„ „	1897–98
126⅓	„ „	1893-94		157½	„ „	1898–99

During the latest year 870,000 lbs. of tea were also exported from India by land into neighbouring countries. The value of India's tea exports in 1898-99 was £5,364,000, or £8,700 less than in 1897–98. Australia took 4 per cent. of the total exports ; about 2 per cent. was sent to Persia, and about the same amount to Turkey in Asia ; and 6½ per cent. to other countries ; while the rest ($139\frac{1}{4}$ million lbs.) went to the United Kingdom. The quantity of Indian tea sent direct to the United States was 1,414,000 lbs., or 52 per cent. above the consignments of the previous year.

AGRICULTURAL PRODUCE.

According to the British returns the importations of tea into the United Kingdom have come from China, India, and Ceylon in the following proportions:—

In the Year	From China.	From India.	From Ceylon.
1865	93 per cent.	2 per cent.	0 per cent.
1875	86 „	13 „	0 „
1885	66 „	30 „	2 „
1895	16 „	46 „	32 „
1898	10 „	52 „	36 „
1899	12 „	50 „	35 „

In 1899 the price of tea from China rose to $7\frac{3}{4}d.$ per lb., while Indian tea fetched at the auction sales in London an average price of about $8\frac{3}{4}d.$ per lb., and Ceylon tea similarly fetched an average of $8d.$ per lb. In 1898 the auction averages were, Indian tea, $8\frac{1}{2}d.$, and Ceylon tea, $7\frac{3}{4}d.$ per lb.

COFFEE.

The area under coffee was all, with the exception of 548 acres, in Southern India; its cultivation is, in fact, restricted for the most part to a limited zone in Mysore, Coorg, and the Madras districts of Malabar and the Nilgiris. The details of the year were as follows:—

	1897.	1898.
	Acres.	Acres.
Coorg	86,255	82,575
Madras	55,895	63,983
Mysore	125,876	128,079
Travancore and Cochin	7,624	6,384
Burma, Assam, &c.	524	548
TOTAL	276,074	281,569

The yield in 1898, like that of the two previous years, was poor, and in addition to this the London price of coffee ruled low. Taking the area and production of 1885 to represent 100, the ratio of yearly increase or decrease is as noted in the margin. The normal yield of coffee per acre may be taken at $2\frac{1}{2}$ cwts. for the best European plantations, and 1 cwt. for Native plantations. The total yield in 1898 was $23\frac{3}{4}$ million lbs., and the yield per acre in the Madras presidency works out at less than $1\frac{1}{2}$ cwt. per acre. It is reported that 25,930 persons were permanently and 88,550 temporarily employed on the coffee estates. The exports of Indian coffee were 225,000 cwts. in 1897–98 and 270,000 cwts. in 1898–99.

—	Area.	Production.
1887	103	109
1890	114	63
1893	109	109
1895	119	115
1897	116	69
1898	118	68

CINCHONA.

The area under cinchona, according to the not very trustworthy figures which are obtainable, is given as 7,591 acres in 1898–99 compared with 4,406 acres in 1897–98. The Government plantations, 1,303 acres in Darjeeling and 874 acres in the Nilgiris, show no great change, but the returns of private plantations both in Madras and Travancore are more complete. For several years cinchona cultivation has been declining in Bengal and Madras, while in Coorg it has been almost entirely abandoned. A large amount of the yield of private plantations is taken to the Government factories, but there

AGRICULTURAL PRODUCE. CINCHONA.

is also a considerable export from Madras, averaging 1,854,000 lbs. during the last 14 years, and amounting to 1,362,000 lbs. in 1897–98.

On the Government cinchona plantations of the Darjeeling district in Bengal 130 acres were planted during the year; but a spell of cold weather did great damage to seedling plants, and the rate of planting was expected to suffer in 1899–1900. The number of trees uprooted for bark was 469,440, yielding 236,000 lbs. of dry bark, and 170,136 young trees were planted out. The total of the plants at the end of the year was 2,179,000. The purchases of bark from private plantations amounted to 131,615 lbs. The factory, which supplies Bengal, the Punjab, and Assam, used 102,000 lbs. of mixed *succirubra* and hybrid barks, yielding 3,921 lbs. of cinchona febrifuge, and 437,000 lbs. of quinine-yielding bark, from which 10,335 lbs. of sulphate of quinine were extracted. The issue of quinine fell from 10,939 lbs. to 8,766 lbs. and that of cinchona febrifuge from 3,398 lbs. to 2,993 lbs., owing partly to the transfer to the Madras factory of the obligation to supply the North-Western Provinces, and partly to malaria being less prevalent. The quinine supplied to the public is sold at post offices in five grain packets; the febrifuge is sold at the factory; but a large part of the issues are to Government officers for dispensaries and medical depôts. There was a small profit on the operations of the year.

The season in the Madras Cinchona Gardens was favourable, and all the three plantations did well; 88 acres of new land were planted; the year's crop amounted to 101,307 lbs. of bark, taken chiefly by coppicing sickly trees and by thinnings, besides 405,074 lbs. purchased from private plantations. Experiments with home grown seed have been so satisfactory that the supply from Jamaica has been discontinued. The amount of bark worked up in the factory was 461,700 lbs. which produced 12,600 lbs. of sulphate of quinine and 7,200 lbs. of cinchona febrifuge, an output considerably larger than that of any previous year. From this factory are to be supplied the requirements of Madras, Bombay, the North-Western Provinces and Oudh, the Central Provinces, Ajmere, Burma, Coorg, Berar, and Mysore. The sale of quinine at post offices decreased owing to the raising of the price from two to three pies, but shows a tendency to recover. The price of issue to the public, regulated on the basis of the market price was Rs. 18 per lb. for quinine, and Rs. 12 per lb. for the febrifuge.

JUTE.

In Bengal, where nearly the whole of the jute crop is grown, the season was not favourable, and only 75 per cent. of a normal crop is estimated to have been secured. The area under jute in the province was 1,971,300 acres, or 21 per cent. more than in 1898, but lower than the normal area, which is stated as 2,189,400 acres. The total yield, in bales of 400 lbs., is estimated at 4,382,000 bales in 1899, against 4,115,000 bales in 1898. The fluctuations of the jute export trade during recent years have been as follows :—

YEAR.	Raw Jute.		Jute Manufactures.	TOTAL EXPORTS. VALUE.
	Quantity.	Value.	Value.	
	Cwts.	£.	£.	£.
1883–84	7,018,000	3,062,000	890,000	3,952,000
1891–92	8,532,000	4,566,000	1,675,000	6,241,000
1895–96	12,267,000	6,662,000	3,165,000	9,827,000
1897–98	15,023,000	6,754,000	3,954,000	10,708,000
1898–99	9,865,000	4,628,000	3,866,000	8,494,000
1899–1900 (eleven months)	9,407,000	5,184,000	3,818,000	9,002,000

Of the raw jute exports, 50 per cent. went to the United Kingdom, 23 per cent. to Germany, and 13 per cent. to the United States; of the manufactured jute, 13 per cent. went to the United Kingdom, and 47 per cent. to the United States.

The indigo industry of India is passing through a phase of extreme depression, caused by deficient crops and low prices. The fall in price is attributed in some quarters to the competition of the chemical indigo made in Germany. The area under indigo during recent years has shown a considerable decline, the last two years showing totals amounting to only two-thirds of the average of the five preceding years, during which period cultivation had been largely extended, owing to high prices. The acreage of the year under review was little below the average of the five years 1888–92. Apart from the acreage, the yield was a poor one, owing to excessive rain and floods. AGRICULTURAL PRODUCE. INDIGO.

——	1899.	1898.	Average of preceding Five Years.
	Acres.	Acres.	Acres.
Bengal	453,000	512,000	583,000
N.W Provinces and Oudh	205,000	240,000	386,000
Punjab	97,000	47,000	117,000
Madras	307,000	211,000	447,000
Other provinces, about	15,000	15,000	—
TOTAL	1,062,000	1,010,000	1,533,000

The total exports of recent years have been :—

	Cwts.		£	
1888–89	142,000	valued at	2,633,000	Exports by sea, besides about 2,500 cwts. annually exported across the land frontiers of India.
1890–91	118,000	„	2,049,000	
1894–95	166,000	„	3,164,000	
1895–96	187,000	„	3,570,000	
1896–97	170,000	„	2,914,000	
1897–98	134,000	„	2,038,000	
1898–99	135,000	„	1,980,000	
1899–1900 (eleven months)	105,000	„	1,708,000	

The area under sugar in India during the years 1893–98 is given as follows :— SUGAR CANE.

——	1893–94.	1894–95.	1895–96.	18 96–97.	1897–98.
	Acres.	Acres.	Acres.	Acres.	Acres.
Bengal	1,030,600	967,300	944,600	839,800	972,700
North-Western Provinces	1,061,500	978,300	1,099,200	967,700	935,900
Oudh	60,900	255,700	289,800	246,500	212,200
Punjab	327,600	339,900	385,900	398,200	348,100
Other Provinces	216,400	223,500	211,100	199,500	179,500
TOTAL	2,897,000	2,764,700	2,930,600	2,651,700	2,648,400

The amount produced is estimated at about three millions of tons per annum. The imports of sugar during the last four years are given as follows :—

——	1895–96.	1896–97.	1897–98.	1898–99.
	Tons.	Tons.	Tons.	Tons.
From Austria-Hungary	246	5,775	47,287	53,787
„ Germany	35,910	37,940	60,165	20,698
„ Mauritius	68,336	74,442	70,302	105,205
„ China	10,302	6,965	14,558	9,284
„ other Countries	11,450	8,998	19,444	14,901
TOTAL	126,244	134,120	211,756	203,875

AGRICULTURAL PRODUCE.

Shortly before the close of the financial year 1898–99, a law was passed empowering the Government of India to impose countervailing import duties on articles which receive direct or indirect bounties from their country of origin, and such duties were at once levied on bounty-fed sugar. The chief result of this has been a very considerable fall, almost a cessation, of the imports of German sugar, and some reduction in imports of Austrian sugar, while sugar imports from China and the East have increased during the eleven months ending in February, as compared with the corresponding period of the previous year. The total imports for the eleven months in 1899 were considerably less than those of the same months in 1898, and they were both lower than the 1897 figure.

MINES AND MINERAL RESOURCES.

MINERAL RESOURCES. COAL.

The output of coal in India for the last three years is contrasted below with the amount produced ten years ago.

	Coal produced in			
	1888.	1896.	1897.	1898.
	Tons.	Tons.	Tons.	Tons.
Bengal	1,381,000	3,038,000	3,142,000	3,622,000
Central Provinces	158,000	141,000	132,000	150,000
Assam	102,000	177,000	186,000	200,000
Punjab	11,000	79,000	93,000	86,000
Baluchistan	3,000	11,000	9,000	11,000
Burma	Nil	23,000	11,000	7,000
Rewah State	41,000	116,000	125,000	135,000
Nizam's Dominions	13,000	263,000	365,000	394,000
TOTAL	1,709,000	3,848,000	4,063,000	4,605,000

The importations of coal by sea fell from 747,000 tons in 1895-96 to 481,000 tons in 1896–97, and 248,000 tons in 1897–98; in 1898-99 it was 347,000 tons, of which over 85 per cent. came from the United Kingdom. Against this must be set an export during the year 1898–99 to foreign countries amounting to 327,000 tons, so that India may be said to produce all the coal she needs. On all Indian railways 1,452,000 tons of coal were used in 1898, of which 1,414,000 tons, or more than 97 per cent., were Indian coal. At the end of 1898 there were 101 coal mines, including some very small ones, in Bengal, of which seven were opened, while eight were not worked, during the year. There are two important mines in the Punjab, and two, including the Government mine at Warora, in the Central Provinces; the largest of all the mines are the East India Railway Company's mines near Giridhi which produced 461,000 tons and the Singareni mine in Hyderabad, which produced 394,000 tons of coal during the year. The number of persons employed in the coal mining industry in 1898 was 63,000, of whom 17,000 were women and 3,000 children.

IRON.

The question of the utilisation of the coal and iron supply of India in the establishment of a steel industry has received much attention of late, and a report has been drawn up, and a brief summary of its conclusions is given below in the chapter on Trade and Manufactures. At present the only ironworks in India are those at Barrakur, in Bengal, at which during the year

1899 the total production of pig-iron was 19,63} tons; 11,996 tons were consumed in the Barrakur foundries and 5,826 tons were sold. The Company raised over 49,000 tons of coal during the year, and made 11,600 tons of coke; some of the coke used by them is not of their own manufacture. The contract under which the East Indian Company were supplied with a large quantity of pig-iron expired at the end of 1898, and was not renewed during the year, but orders from other customers showed an increase, and the total output was little less than in the previous year. At present the Company are aiming at putting 30,000 tons of pig-iron annually on the market; but when they see an outlet for 50,000 tons they will be in a position to increase the output to that amount. The quality of the iron has much improved, and it is reported to be as good as Middlesborough iron. MINERAL RESOURCES.

The production of petroleum from the principal oil-fields has been returned thus:— MINERAL OIL.

Produced in	Average of Three Years 1894–1896.	1896.	1897.	1898.
	Gallons.	Gallons.	Gallons.	Gallons.
Burma - - - -	12,904,000	14,816,000	18,905,000	18,424,000
Assam - - - -	148,000	239,000	222,000	548,000
TOTAL - - -	13,052,000	15,055,000	19,127,000	18,972,000

In Upper Burma a yield nearly equal to that of the preceding year was obtained in 1898 from the Yenangyaung field by the Burma Oil Company, which has been at work in the Upper Burma field for over 20 years, and which possesses a refinery in Rangoon, and has a staff of skilled American oil workers. The northern section of the Upper Burma oil-field, known as the Yenangyat field, gave a largely increased output during the financial year 1898–99. The Assam Oil Syndicate more than doubled their yield of oil during the year. In Baluchistan the attempt to work the oil sources was not renewed.

The large importations of 1897–98 were not equalled in the year 1898–99, although the figure was still a considerable one. Particulars of recent years are as follows:—

IMPORTATIONS of Mineral Oils into India.

——	1883-84.	1893-94.	1895-96.	1897-98.	1898-99.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
From United States -	12,714,697	49,226,000	22,494,000	25,967,000	23,602,000
„ Russia - -	—	34,045,000	39,876,000	50,672,000	50,941,000
„ elsewhere - -	1,169,141	395,000	943,000	10,687,000	7,408,000
TOTAL - - -	13,883,838	83,666,000	63,313,000	87,326,000	81,951,000

The import duty on petroleum was doubled in March 1894, and is now one anna (about one penny) per gallon, but the increased duty does not appear to have permanently or seriously affected consumption. The value of the oil imported during 1898–99 was £2,164,000, and that of the locally-produced oil is estimated at about £340,000 for the year 1898.

MINERAL RESOURCES.

GOLD.

The outturn of the Indian gold mines in 1899 was higher than in previous years, as shown in the margin, in spite of an outbreak of plague, which made labour scarce in the early part of the year. Eleven companies produced gold during the year, but of these only four show figures of any importance. The Coromandel mine fell off from the increased output which it had shown in the previous two years. The principal mines are—

	Oz.
1896	321,878
1897	389,779
1898	416,236
1899	448,071

The Champion Reef, which produced 140,158 oz. in 1898 and 159,101 oz. in 1899.

„	Mysore	„	„	159,374 oz.	„	155,786 oz.	„
„	Nundydroog	„	„	31,223 oz.	„	43,654 oz.	„
„	Ooregum	„	„	52,585 oz.	„	61,282 oz.	„

RUBIES.

The Burma ruby mines were worked by the company and by native licensed miners under the company; the expenditure of the company was returned at £430,000, and the value of the rubies recovered is said to have been £579,000. The company paid in 1899 a dividend of 5 per cent. on their shares, being the first dividend distributed since the company began work in 1899.

CHAPTER X.

PUBLIC WORKS.

DURING the year under review the Public Works Department was represented in the Council of the Governor General by Sir A. C. Trevor, K.C.S.I. The post of Public Works Secretary was held throughout the year by Mr. F. R. Upcott.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at a strength below that of the preceding year.

The following statement shows the composition of the superior engineer establishment, as it stood on the 30th June in 1898 and 1897:—

	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers	61	5	3	69
Other military officers	6	—	—	6
Civil Engineers:				
Appointed from Europe	294	56	52	402
Europeans appointed in India	158	5	7	170
Natives appointed in India	61	17	25	103
TOTAL for 1898	580	83	87	744
TOTAL for 1897	588	81	87	756

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three presidencies were as follows:—

	India.	Madras.	Bombay.	TOTAL.
Europeans	208	62	20	290
Natives	338	113	171	622
TOTAL	546	175	191	912

The engineering branch of the Department is divided into two services, imperial and provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the imperial service is recruited from the Royal Indian Engineering College at Cooper's Hill; the provincial service draws its recruits from students of the Indian colleges who are natives of India, and from upper subordinates of the Public Works Department.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an imperial service under the direct control of the Government of India; the establishment employed on irrigation, and on buildings and roads, is subdivided into different provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

PUBLIC WORKS.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1898–99 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.

	£.
Railways	15,160,535
Irrigation	2,308,716
Buildings and Roads	470,024
TOTAL	17,939,275

EXPENDITURE (exclusive of £975 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
Railways:	£.	£.
Construction	968	2,846,353
On Revenue Account	15,788,618	—
Irrigation:		
Construction	52,232	435,698
Ditto from Famine Relief Grant	7,779	—
On Revenue Account	2,076,725	—
Buildings and Roads:		
Military Works	807,719	—
Civil Works	3,104,816	—
Miscellaneous Public Improvements	—	2,736
TOTAL	21,838,857	3,284,787

The expenditure charged against revenue includes the following items of "Interest on Debt" : —

	£.
Railways	3,741,332
Irrigation	875,129

On the 31st of March 1899 £90,701,358 of permanent public debt had been incurred on account of railways, and £22,219,581 on account of irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £1,716,326.

RAILWAYS.

RAILWAYS.

A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of the chief facts. As the accounts of the several railways had not been finally closed when the following statistics for the year 1899 were prepared, the figures must be accepted as only approximately correct.

The railways of India may be broadly divided into the Guaranteed, the State, and the Assisted. In the early days of railway enterprise the agency of private companies guaranteed by the State was exclusively employed, and nearly all the great trunk lines were made under this system. The chief terms of the contract between the old guaranteed companies and the State were as follows: the Government gave the land required free of charge; it also guaranteed interest, generally at the rate of 5 per cent., on the share capital raised with its consent, and a lower rate upon debenture capital. A general control and supervision over the proceedings of the company was also retained, and Government stores and troops were to be carried on favourable terms. If the net profits in any half-year fell below the amount of guaranteed interest the Government made up the deficiency. If they exceeded this amount the surplus was equally divided between the Government and the company. Moreover, the Government had the right of buying the undertaking at specified dates, on payment of the value of the stock calculated at its market price on the average of the three preceding years. In this way the East Indian Railway was acquired in 1880, the Eastern Bengal Railway in 1884, the Scinde, Punjab, and Delhi Company's lines in 1885–86, the Oude and Rohilkund Railway at the end of 1888, and the South Indian Railway in 1890. Notice of intention

to purchase the Great Indian Peninsula Railway was served on the Company on the 18th August 1899. In 1870 a new policy of railway development by the direct agency of the State was inaugurated; and in 1880–81 the system of encouraging private enterprise by State assistance was again resorted to. Both agencies are now employed side by side. The experience gained of the working of the old guarantee system has, however, suggested various modifications in the relations between the State and the companies which have more recently been formed for the construction and working of railways, and the nature of the assistance granted now varies considerably. In some instances, of which the Bengal and North Western Railway is the most important, lines have been constructed without any direct pecuniary assistance; in others a subsidy or limited guarantee has been granted. Special terms have been offered by the Government to attract private enterprise to the construction of branches and feeder lines to the larger systems. Those terms include the concession by the parent line of favourable working rates, and sometimes a rebate on traffic interchanged between the two lines or a guarantee. The agency of private companies has also been employed by the Government both in the construction and working of State lines. In all cases the Government has the power of taking over the railway at specified periods on stated terms. RAILWAYS.

The following figures, taken from the Finance and Revenue Accounts of 1898-99, show the financial result of the working of the railways in India for the year ended 31st March 1899 :—

	Imperial.	Provincial.	England, including Exchange.	TOTAL.
REVENUE.				
(Railways.)	£	£	£	£
State Railways — (Gross traffic receipts)	13,037,343	38,406	230	13,075,979
Guaranteed Companies — (Net traffic receipts)	2,055,115	- -	- -	2,055,115
Subsidised Companies — (Repayment of advances of interest)	29,143	- -	297	29,440
TOTAL	15,121,601	38,406	527	15,160,534
EXPENDITURE.				
(Railway Revenue Account.)				
State Railways:				
Working expenses	6,622,226	34,634	- -	6,656,860
Interest on debt	2,773,123	- -	968,209	3,741,332
Annuities in purchase of railways	- -	- -	1,716,326	1,716,326
Interest chargeable against companies on advances	88,718	- -	219,179	307,897
Interest on capital deposited by companies	10,992	- -	812,978	823,970
Guaranteed Companies:				
Surplus profits, land and supervision	265,489	- -	- -	265,489
Interest	5,472	- -	2,165,440	2,170,912
Subsidised Companies:				
Land, &c.	62,809	6,794	- -	69,603
Miscellaneous railway expenditure	36,561		- -	36,225
TOTAL	9,865,390	41,092	5,882,132	15,788,614

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, and Scinde, Punjab, and Delhi Railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand Railway debt incurred in excess of the money raised through agency of the "discount" sinking fund; the figures also include charges for land required by the

RAILWAYS. companies, for control, and for miscellaneous items, such as headquarters establishment and surveys. After meeting all these expenses, the total charge to the State in 1898–99 was £ 628,084.

The statistical results of the working of the various classes of railways during 1899 are given in the following table. The aggregate net earnings of all Indian railways amounted to 5·32 (*a*) per cent. on the total capital outlay on open lines, including steamboat service and suspense items, but excluding other indirect charges, against 5·37 (*a*) and (*b*) per cent. in the previous year :—

RAILWAY STATISTICS, 1899.

CLASS.	Length of Line open on the 31st December 1899.	Total Capital Outlay on Open Lines to the 31st December 1899, including Steamboat and Suspense.	Total Number of Passengers carried.	Total Weight of Goods carried.	Gross Earnings, including Steamboat Service.	Working Expenses, including Steamboat Service.	Net Earnings, including Steamboat Service.	Percentage of Net Earnings on Capital Outlay on Open Lines.
Standard Gauge.	Miles.	£	No.	Tons.	£	£	£	
State lines worked by companies	4,182·80	48,126,653	25,987,582	12,453,366 (*c*)	5,423,228	2,023,487	3,399,741	
State lines worked by the State	5,035·35	51,790,548	33,967,512	8,658,321	4,044,196	2,135,458	1,908,738	
Lines worked by guaranteed companies	2,592·30	34,552,616	37,769,511	5,748,501	4,218,158	2,206,333	2,011,825	
Assisted companies	826·39	4,190,808	3,473,193	490,823	233,028	110,784	122,244	
Lines owned by Native States and worked by companies	705·74	4,609,667	2,564,775	1,257,819	371,984	152,676	219,308	
Lines owned by Native States and worked by State Railway Agency	123·86	511,103	998,952	156,907	42,008	23,122	18,886	
Total for 1899	13,466·44	143,781,395	104,761,505	28,765,737	14,332,602	6,651,860	7,680,742	5·34
Total for 1898 (*b*)	12,788·59	135,449,316	97,239,429	26,974,285	13,729,428	6,302,727	7,426,701	5·48
Metre Gauge.								
State lines worked by companies	6,941·59	37,389,160	44,993,781	8,156,554	3,999,356	2,052,267	1,947,089	
State line worked by the State	643·99	3,465,371	4,165,260	663,816	402,789	193,667	209,122	
Assisted companies (*e*)	329·97	1,606,656	1,505,378	477,744	138,662	69,035	69,627	
Lines owned by Native States and worked by companies	381·06	1,029,268	980,730	240,428	45,852	24,000	21,852	
Lines owned and worked by Native States	997·98	2,302,467	2,942,525	674,287	295,229	138,582	156,647	
Total for 1899 (*e*)	9,294·59	45,792,922	54,587,674	10,212,829	4,881,888	2,477,551	2,404,337	5·25
Total for 1898 (*b*) and (*d*)	8,609·50	42,449,898	52,836,124	9,094,589	4,426,348	2,292,116	2,134,232	5·03
Special Gauges.								
State lines worked by the State	28·00	62,114	59,721	20,274	6,270	6,578	—308	
Assisted companies	192·59	585 797	1,785,508	111,096	92,398	59,394	33,004	
Lines owned by Native States and worked by companies	116·12	225,000	373,885	85,579	17,657	11,567	6,000	
Lines owned by Native States and worked by State railway agency	33·18	70,415	95,904	15,469	5,620	2,529	3,091	
Lines owned and worked by Native States (*f*)	94·36	167,000	293,000	40,482	27,667	16,400	11,267	
Total for 1899 (*f*)	464·25	1,110,326	2,608,018	272,900	149,522	96,468	53,054	4·78
Total for 1898 (*b*)	416·86	999,391	2,210,207	229,065	137,673	91,865	45,808	4·58
TOTAL of all Railways for 1899 (*e*) and (*f*)	23,225·28	190,684,647	161,957,197	39,251,466	19,364,012	9,225,879	10,138,133	5·32
TOTAL of all railways for 1898(*b*) and (*d*)	21,814·95	178,898,605	152,285,760	36,297,939	18,293,449	8,686,708	9,606,741	5·37

(*a*) Excluding the West of India Portuguese, Pondicherry and Karaikkal-Peralam Railways.
(*b*) As corrected from later information.
(*c*) Excluding the Calcutta Port Commissioners' railway for which information is not available.
(*d*) Excluding the Mymensingh-Jamalpur-Jagannathganj railway.
(*e*) Excluding the Segowlie-Raxaul railway for which information is not available.
(*f*) Excluding the Gwalior Light railways for which information is not available.

It will be observed that, with an increase of 1,410·33* miles, or 6·46 per cent., in the open mileage as compared with 1898, the gross earnings and working expenses show increases of £1,070,563, or 5·85 per cent., and of £539,170, or 6·21 per cent., respectively, resulting in an increase of £531,393, or 5·53 per cent., in the net earnings.

The total number of passengers carried show an increase of 9,671,437, and the quantity of goods handled of 2,953,527 tons as compared with the previous year.

The total railway mileage on each gauge opened during the year, and the sections opened, were as follows:—

	Miles.	*Miles.*	*Miles.*
STANDARD GAUGE.			
Bengal-Nágpur—Balasore to Barang		116·78	
Indian Midland—Damoh to Katni		68·86	
North-Western State—			
Lyallpur to Toba Tek Sing	49·00		
Campbellpur to Mari	75·55		
		124·55	
Eastern Bengal State—Sivarampur to Faridpur		7·43	
Bezwada-Madras—Gudur to Ennúr		74·60*	
Madras—Walajah Road to Ranipet		4·17	
Southern Punjab—Narwana to Kaithal		23·38	
Tápti Valley—Vyara to Nardana		103·50	
South Behar—Luckeeserai to Gya		78·83	
Bína-Goona-Baran—Goona to Baran		73·49	
			675·59
METRE GAUGE.			
Bengal and North-Western—			
Mau to Benares	58·06		
Aunrihar to Ghazipur	28·47		
Kopaganj to Chand-Deiara Ghât	66·61		
Revelganj Ghât to Manjhi Ghât	3·71		
		156·75	
South Indian—			
Negapatam to Nagore	4·49		
Cuddallore Old Town station to the Beach	1·30		
Tuticorin station to the new Pier	0·27		
Tuticorin to Salt factory	2·02		
		8·08	
Assam-Bengal—			
Gauhati to Lanka	59·01		
Lanka to Lumding	16·93		
Badarpur to Damchara	18·00		
		93·94	
Burma—Meiktila to Myingyan		57·70	
Brahmaputra-Sultanpur—Santahar to Bogra		24·50	
Mymensingh-Jamalpur-Jagannathganj—Singhjani to Jagannathganj		20·30	
Segowlie-Raxaul—Segowlie to Raxaul		18·09	
Nilgiri—Mettupalaiyam to Coonoor		16·90	
Mysore-Nanjangúd—Nanjangúd to nearer Nanjangúd		0·55	
Birur-Shimoga—Birur to Shimoga		37·98	
Hyderabad-Godávari Valley—Manmád to Sailu		154·23	
Jodhpur - Bikaner, Jodhpur Section — Balotra to Barmer	60·00		
Bikaner Section—Gigasar to Palána	9·50		
		69·50	
Udaipur-Chitor—Debari to the Ahr river near Udaipur		6·44	
			664·96
SPECIAL (2FT. 6IN.) GAUGE.			
Rajpipla—Rajpardi to Nandod		18·29	
Cooch Behar—Cooch Behar to Alipur Duar		11·50	
Ránaghat-Krishnagar—Aistala Ghât to Krishnagar		20·25	
SPECIAL (2FT.) GAUGE.			
Gwalior Light—			
Gwalior to Sipri	72·56		
Gwalior to Bhind	47·04		
		119·60	
			169·64
TOTAL			†1,510·19

* For difference between this figure and the total length shown as opened during 1899 in paragraph 3, *see* foot-note (*d*), (*e*), and (*f*), on page 4.

† *See* foot-note † above.

RAILWAYS.

The additional lengths sanctioned for construction were—

STANDARD GAUGE.	Miles.	Miles.	Miles.
East Indian—			
Sitarampur to Domohani	6·99		
Pandra branch of the Jherriah extension	3·24		
Barun to Daltonganj	78·32		
		88·55	
Bengal-Nágpur—			
Midnapore to Bujudih	*114·39		
Khargpur to Midnapur	†8·00		
		122·39	
North-Western State—Peshawar to Jamrud		* 10·00	
East Coast Stats—Naupada to Government Salt Pans		2·61	
Petlad-Cambay—Petlad to Cambay		* 20·78	
			244·33
METRE GAUGE.			
Bengal and North-Western, Tirhoot Section—Sakri to Jainagar		* 30·47	
South Indian—			
Madura to Toni Torai	94·00		
Mutanandal to Sivaganga	9·00		
Tinnevelly to Quilon	103·00		
		206·00	
Burma—Bassein *vid* Henzada to Tharrawaddy		119·00	
Eastern Bengal State—Kaunia-Dhubri-Gauhati extension—			
Moghalhat to Dhubri		38·83	
Vijapur-Kalol—Vijapur to Kalol		* 29·60	
Shoranur-Cochin—Shoranur to Cochin		65·00	
Jodhpur-Bikaner, Bikaner Section—			
Gigasar to Palana	9·50		
Suratghar to Bhatinda	88·00		
		97·50	
Jaipur-Sanganer to Siwai Madhopur		† 72·85	
			659·25
SPECIAL (2FT. 6IN.) GAUGE.			
Nowshera-Dargai State—Nowshera to Dargai		40·10	
Ranaghat-Krishnagar—Ranaghat to Krishnagar		20·25	
			60·35
		TOTAL	963·93

The total mileage under construction or sanctioned for commencement at the close of the year, *i.e.*, on the 31st December 1899, was as follows:—

STANDARD GAUGE.	Miles.	Miles.
State lines worked by companies	638·46	
State lines worked by the State	182·36	
Lines worked by guaranteed companies	129·09	
Assisted companies	49·26	
Lines owned by Native States and worked by companies	20·78	
Lines owned by Native States and worked by State railway agency	80·32	
		1,100·27
METRE GAUGE.		
State lines worked by companies	1,178·53	
State lines worked by the State	107·89	
Assisted companies	153·39	
Lines owned by Native States and worked by companies	324·65	
Lines owned and worked by Native States	307·62	
		2,072·08
SPECIAL (2FT. 6IN.) GAUGE.		
State line worked by company	56·67	
State line worked by the State	40·10	
Assisted companies	64·81	
Lines owned by Native States and worked by State railway agency	20·62	
SPECIAL (2FT.) GAUGE.		
Assisted companies	60·00	
		242·20
	TOTAL	3,414·55

* Commencement of work not yet authorised. † Sanctioned previously, but omitted.

The following gives a brief abstract of the important works completed and in progress during 1899 :— RAILWAYS.

East Indian Railway.—The Moghal Sarai-Gya extension is expected to be shortly opened for traffic. Work was commenced during the year on the Bárun - Daltonganj branch, 78·32 miles in length. The extension from Sitárámpur to Domohani, 6·99 miles, and the Pandra branch of the Jherriah extension, 3·24 miles, were sanctioned during the year. The doubling of the Gháziabad-Delhi (10·76 miles) and Sitarámpur-Barákar (4·32 miles) sections and of 4·46 miles between mile 143 and mile 151 was also sanctioned during the year.

South Behar (Luckeeserai-Gya) Railway.—This line, 78·83 miles in length, was opened for traffic on the 3rd July 1899.

Bengal Central Railway.—In order to afford facilities for goods traffic at Calcutta, the construction of a siding from Dum-Dum Cantonment station to Pattipooker was sanctioned during the year and land is being acquired to allow of the work being put in hand.

Bengal-Nágpur Railway.—Of the Cuttack-Calcutta extensions, the sections from Kolaghat to Balasore, and from Balasore to Barang were opened for all descriptions of traffic on the 6th March 1899; but a portion from Bhadrak to Barang was closed during the rains and re-opened in November 1899. The Kola-Howrah section is well advanced and the rails are now laid to Bowreah. This section is likely to be opened for traffic in April 1900.

All the large bridges have been completed with the exception of the Kooakye, Katjuri, Mahanadi, and Roopnarain, which are expected to be completed and ready for traffic shortly.

Of the Khargpur-Midnapore extension, 8 miles, which was sanctioned in December 1899, the portion from Khargpur to Kossye river was opened for goods traffic in December 1899, and only about a mile and a half remain to be completed. This length will be finished and the whole extension opened for all descriptions of traffic shortly. The extension from Midnapore to Bujudih, 114·39 miles in length, was sanctioned during the year.

The gauge of the Raipur-Dhamtari feeder line has been altered from 2′ to 2′6″; and the revised estimates are under preparation. Pending sanction to these estimates, work is progressing slowly.

Bína-Goona-Bárán Railway.—The Goona Bárán extension, 73·49 miles was opened for traffic on the 15th May 1899, and is being worked by the Indian Midland Railway Company.

Gwalior Light Railways.—Both the Gwalior-Sipri and Gwalior-Bhand sections, 119·60 miles in length excluding 8 miles of the existing line, were opened for traffic on the 2nd December 1899 and are being worked by the Indian Midland Railway Company.

North-Western (State) Railway.—The Mari-Attock railway from Campbellpur to Basál and from Jand to Daud Khel, aggregating 75·55 miles in length, has been taken over by the North Western State Railway and was opened for public traffic on the 1st April 1899. The extension from Lyallpur to Toba Tek Singh, 49 miles, was also completed and opened for public traffic on the 22nd June 1899. Construction of a line of railway from Nowshera to Dargai, 40·10 miles in length, on the 2′ 6″ gauge, was received during the year and work has been commenced.

Work in connection with the junction arrangements at Kotri and additions and alterations to the yard in view of the approaching opening of the railway bridge over the Indus are nearly completed.

At the end of the year, all main girders of the Indus Bridge at Kotri had been erected and only minor girder-work and miscellaneous work on the bridge and approaches remained to be done. The bridge is expected to be ready for opening in April 1900. The Hyderabad Rahoki section (6·25 miles) awaits arrival of girders of small span, on receipt of which culverts will be completed and rails laid.

Southern Punjab (Delhi-Samásata) Railway.—The Narwana Kaithal branch, 23·38 miles in length, was opened for goods traffic on the 1st February and for passenger traffic on the 8th March 1899.

RAILWAYS.

Ludhiána-Dhuri-Jokhal Railway.—The construction of this railway, 80·32 miles in length, was commenced during the year.

Oudh and Rohilkhand State Railway.—The works in connection with the remodelling of the Benares Cantonment station, as well as the works on the metre-gauge connection between the Oudh and Rohilkhand Cantonment and the Bengal and North-Western City stations at Benares, are in progress and will, it is anticipated, be completed by the 31st March 1900. For the convenience of the public, the metre-gauge connection was, under certain restrictions as regards speed, opened for passenger traffic on the 5th April 1899.

The construction of the Gháziabad-Moradabad railway, 87·05 miles in length, has made good progress during the year. The permanent-way has been laid throughout and bridging practically completed with the exception of the Ganges bridge (11 spans of 200 feet), all the piers of which are in hand and more than three-fourths of the well-sinking completed. It is expected that the portion of the line on the east side of the Ganges will be opened for traffic in April 1900 and that on the west side in December 1900.

Hardwar-Dehra Railway.—Construction was in progress on this railway during the year, and the line is expected to be opened for traffic in March 1900.

Eastern Bengal State Railway.—On the eastern section the remaining portion of the Rajbari-Faridpur branch, 7·43 miles in length, was opened for traffic on the 9th of April 1899. The Ránaghat-Churni extension was opened on the 5th of April 1899. On the Northern Section, work on the Teesta Bridge has been in progress. The construction of the Moghalát-Dhubri section (38·83 miles of the Kaunia-Dhubri-Gauhati extension has been started. Sanction has also been accorded to the conversion of the existing 2 6″ gauge line from Teesta to Moghalhát, 12·23 miles, to the Metre gauge in connection with this extension.

Brahmaputra-Sultanpur Railway.—The portion of this railway from Santahar to Bogra, 24½ miles, was opened for traffic on the 1st April 1899. The section from Bogra to Khooriabadha will probably be opened about April 1900 and the rest will be ready for opening about June 1900.

Mymensingh-Jamálpur-Jagannathganj Railway.—The remaining portion of this railway from Singhjani to Jagannathganj, 20·30 miles, was opened for traffic on the 1st December 1899.

Cooch Behar State Railway.—Of the Santabari extension, the native state section from Cooch Behar to Alipur Duar (11·50 miles) was opened for traffic on the 15th April 1899. The British portion from Alipur Duar to Jhainti will probably be ready for opening by the end of February or in March 1900. The Torsa bridge is expected to be opened shortly.

East Coast State Railway.—The Gudur-Ennúr section of the Bezwada-Madras railway was opened for all descriptions of traffic on the 23rd February 1899, and the working taken over by the East Coast State railway. A branch from Naupada station to the Government salt pans (2·61 miles in length) was sanctioned during the year and the work is now in hand. The junction arrangements with the Southern Mahratta railway at Tadêpalli have been completed and the transhipment of goods traffic with that railway was transferred from Bezwada to Tadêpalli on the 15th August 1899.

The formation of both the approaches of the Gódávari bridge is finished. The right and left abutments have been completed. The wells of remaining four piers are in progress, superstructure of 49 piers have been completed and three are in hand; 12 spans of girders have been erected and lifted on to piers and 19 spans are in progress. The bridge is likely to be ready for opening in December 1900.

Great Indian Peninsula Railway.—Good progress was made during the year in the construction of the Amalner-Jalgaon extension, 34·28 miles, which, excepting the Girna bridge, will probably be completed before next monsoon. The construction of the Chalisgaon-Dhulia branch, 35 miles, was commenced in June 1898, and good progress made up to the end of 1899. This branch, it is expected, will be opened for traffic in April 1900.

Bombay, Baroda and Central India Railway.—Work is in progress on the length remaining to be doubled, *viz.*, between Dahanu and Sachin. The work of renewing Warren girders by plate girders was completed during the year. The protective works of the Nerbudda bridge are in hand. Estimates for the extension of the Parel Workshops have been sanctioned and the work is in progress. RAILWAYS.

Rajputana-Malwa Railway.—The conversion of the portion between Ferozepore Cantonment and Kot Kapúra from the metre to the standard gauge and the construction of a standard gauge line from Kot Kapúra to Bhátinda were completed and North Western State Railway trains commenced running over the section on the 15th June 1899.

Tápti Valley Railway.—This line was opened for passenger traffic as far as Dondaicha, mile 118½, and for goods traffic as far as Nardána, mile 138¾, during 1899.

Vizapur-Kalol Railway.—The construction of this line, 29·60 miles, at the cost of the Baroda Durbar, was sanctioned during the year.

Petlád-Cambay Railway.—The construction of this line, 20·78 miles in length, was also sanctioned during the year at the cost of the Baroda and Cambay Durbars.

Rajpipla Railway.—The length, Rajpardi to Umalla, 4·95 miles, was opened for traffic on the 19th January 1899, and the remaining portion, from Umalla to Nandod, 13·34 miles, on the 13th November 1899.

Jaipur Railway.—Up to the end of the year, earthwork throughout the whole length was practically complete. The bridge work for the first 40 miles was also completed, and the remaining bridge work was taken in hand from the 1st October 1899. One abutment and one pier of the Banas bridge, 30 spans of 60 feet, have been nearly completed and the second abutment and 10 more piers are already founded. Eighty-five per cent. of the ballast required is in hand and three station buildings are ready, the remaining three being well in hand.

Madras Railway.—The Walajah Road Ranipet section, 4·17 miles, was opened for traffic on the 17th April 1899. The Madras-Ennur section was handed over to the East Coast State Railway on the 1st July 1899. The extension of the Madras Railway from Ráyapuram to the joint station of the South Indian and Madras railways, opposite the General Post Office on the Beach, has been finished. The construction of the Calicut-Baliapatam Railway (59·71 miles) is in progress.

Nilgiri Railway.—This railway was opened for public traffic on the 15th June 1899, and is being worked by the Madras Railway Company.

Shoranur-Cochin Railway.—The construction of this railway, 65·00 miles in length, on the metre gauge, was sanctioned in February 1899, and the work is in progress.

Hyderabad-Gôdávari Valley Railway.—Of the Northern section, the portion from Manmád to Sailu, a length of 154·23 miles, was opened for public traffic on the 7th December 1899. The portion beyond Sailu is ready for rails. Of the Southern section, rails have been laid from Secunderabad up to the southern bank of the Godávari river, a distance of 116¼ miles, and formation beyond this point is also ready for rails. The whole line is likely to be opened for traffic in June 1900.

Bengal and North-Western Railway.—Of the Ganges-Gogra Doab lines, the remaining portions, viz., the section from Mau to Benares Cantonment, the Chazipur branch and the Mau-Ballia-Revelganj line, aggregating 156·75 miles in length, were opened for goods traffic on the 15th March 1899, and all these, with the exception of the portion from Ballia to Chand-deara Ghát, for coaching traffic on the 5th April 1899. The Ballia-Chand-deara Ghát section, 29 miles, was opened for passenger traffic on the 12th May 1899, but was closed from the 15th June 1899 during the monsoon. It was re-opened on the 26th December 1899.

RAILWAYS.

The temporary bridge over the Gogra at Turtipur was removed on the 24th June 1899 during the rains and is again being erected.

Fair progress has been made with the works on the Hajeepur-Katihár extension of the Tirhoot section, 161 miles in length, and it is expected that the greater portion of the line will be open for traffic in March 1900. The construction of a branch line from Sakri to Jainagar, 30·47 miles in length, was sanctioned in June 1899.

Segoulie-Raxaul Railway.—This branch line, 18·09 miles, was opened for traffic on the 1st March 1899; but had to be closed from the 29th June 1899 during the rains. It has again been opened for goods traffic from the 19th October and for passenger traffic from the 23rd October 1899.

Birur-Shimoga Railway.—This line, 37·98 miles in length, was opened for public traffic on the 1st December 1899, and is being worked by the Southern Mahratta Railway Company.

South Indian Railway.—The Negapatam-Nagore extension, 4·49 miles, was opened for traffic on the 1st December 1899. The construction of the Madura-Pamban and Tinnevelly-Quilon branches, each 103 miles in length, was sanctioned during the year, and work is in progress.

Assam-Bengal Railway.—On the Chittagong-Badarpur section, the head office and station buildings at Chittagong have been completed and occupied during the year. Cranes for the jetty at Chittagong have been erected and the hydraulic machinery put into working order, and the jetty is now ready to deal with cargoes. The Badarpur-Silchar branch was opened for passenger traffic from the 5th April 1899.

On the Badarpur-Lumding section, the line from Badarpur to Dámchara was opened for goods traffic on the 23rd April 1899, but, owing to several land slips caused by heavy rains, the line between Bihara and Dámchara was twice blocked; it was reopened on the 20th September 1899. Earthwork, tunnelling, and bridge work were in progress on all the divisions; but a heavy rainfall greatly impeded the progress. The tunnels on the 8th division were completed.

A portion of the branch from Gauhati to Lanka was opened for goods and passenger traffic on the 2nd January 1899, and an additional length of 16·93 miles from Lanka to the junction with the 11th division was opened for goods traffic on the 1st March 1899. But the portion of line between Jamuna Mukh and Lanka had to be closed from the 2nd October 1899, owing to the bad state of the road caused by excessive rains. This portion was reopened on the 1st January 1900.

Burma Railways.—The Mogaung-Myitkyina extension, 37 miles, and the Meiktila branch, 57·70 miles, were opened for traffic of all kinds on the 11th February and 15th November 1899, respectively; and the branch line from Ywataung station (on the Mu Valley Railway) to the town of Alon in the Lower Chindwin district has been under construction, and will probably be ready for opening by the end of March 1900. Work has been commenced on the Letpadan-Tharrawa section of the Bassein-Henzada branch, the construction of which was sanctioned in September 1899.

On the Mandalay-Kunlon extension, rail communication between Myohaung and the Gokteik gorge (mile 80) was established in October 1899. The first shipment of materials for the Gokteik bridge arrived in Rangoon at the end of October 1899; but in November heavy floods breached the line in many places and caused a delay of three weeks in getting materials to site, and work on the bridge consequently was not started till the 1st December 1899. These floods, which were much above any known previous record, did a great deal of damage, which will probably delay the opening of the line to Nammaw (mile 73).

The alignment of the Gokteik approaches was finally settled in June 1899, and work was immediately started thereon, a considerable amount of earthwork and 59 lineal feet of tunnel heading, with 65,569 cubic feet of opening out, being completed before the close of the year.

On the line between Gokteik gorge and Thibaw, ballast, permanent-way, and erection of girders remained to be completed at the end of the year, and the earthwork and bridging was in a fairly advanced stage between Thibaw and Lashio.

Bengal Dooars Railway.—The extensions of this railway are under construction. A portion of the Eastern extension, viz., from Mal Bazar to Chalsa, and the Western extension from Dam Dim to Bagrakote are likely to be opened for traffic by the 1st July 1900. On the Southern extension from Barnes Ghát to Lalmonir Hat, the rails will be laid throughout by the 1st July 1900.

Dibru-Sadiya Railway.—The construction of the Dibing Bridge is in hand.

Jodhpur-Bikaner Railway.—Of the native states section of the Shadipalli-Balotra Railway, the first 60 miles from Balotra to Bármer was opened for traffic on the 15th May 1899. Platelaying beyond Barmer has been carried out on 35 miles, and the entire section is likely to be opened in April 1900.

Of the Bikaner-Bhátinda section, earthwork on the portion from Dulmera to Suratgarh (72·00 miles) was completed and rails laid on 25 miles. The whole of this length is likely to be opened in July 1900. Sanction to the construction of the extension from Suratgarh to Chátinda, 88·00 miles, was accorded during the year, and about half the earthwork has been done.

The Gigasar-Palana branch, 9·50 miles in length, which was sanctioned in January 1899, was opened for goods traffic only on the 26th June 1899.

Hyderabad-Shadipalli-Balotra Railway (British Section).—Work in connection with the conversion of the Hyderabad-Shadipalli section (55·08 miles) is in abeyance. On the Shadipalli-Jodhpur frontier section (69·06) miles, earthwork and culverts are practically complete, and rails have been laid for 20 miles from Shadipalli. Buildings are well advanced. This section is expected to be opened for traffic in June 1900.

Udaipur-Chitor Railway.—The extension from Debari to Udaipur with the new Udaipur station was opened for public traffic on the 25th August 1899.

Cherra-Companyganj State Railway.—On the 27th March 1899, the railway banks were destroyed between Therria and Bholáganj for a distance of 3½ miles by a very heavy flood of the Therria river, which caused the traffic to be again closed. A surface line has been laid, and the line opened for goods traffic only on the 3rd January 1900.

Darjeeling-Himalayan Railway.—The damage done to this railway during the cyclonic storm of the 24th and 25th September 1899 extended from the 25th mile to Darjeeling, a distance of 26 miles, the last 18 miles having suffered the most. After the storm, railway communication beyond mile 23½ was stopped. By the end of the year nearly the whole length was repaired and through communication restored thereon.

Ránaghat-Krishnagar Light Railway.—This line, 20·25 miles in length, was opened for public traffic on the 5th April 1899.

The following were the principal events in 1899:

Agreements were made on the 20th and 27th February and 12th May 1899, respectively, between the Indian Midland Railway Company, and the native states of Kotah, Tonk and Gwalior for the maintenance and working of the respective sections of the Goona-Bárán Railway traversing those states.

The Government of India, in April 1899, approved of the taking over and working of the Powayan steam tramway by the Rohilkund and Kumaon Railway Company, and negotiations are being carried on between the two companies for settlement of the details of the agreement.

Under the terms of the contract, dated the 31st October 1896, between the Secretary of State and the Segowlie-Raxaul Branch Railway Company for the construction and working of the Segowlie-Raxaul Railway, the Secretary of State on the 5th June 1899 entered into an agreement with the Bengal and North-Western Railway Company for working the branch line.

From the 1st July 1899, the Bengal Central Railway Company was granted running powers for the Company's goods trains over the Eastern Bengal State Railway between Dum-Dum junction and Sealdah, Chitpore and the Kidderpore Docks on special terms. The terms of the agreement for running powers for coaching trains over the five miles between Dum-Dum junction and Sealdah were also revised with effect from the 1st January 1899.

RAILWAYS.

At the Annual Viceregal Conference, which assembled at Simla on the 15th August 1899 for the consideration of railway projects, the following measures were determined upon :—

(*a*) The preparation of a continual triennial programme of railway construction in place of the three years forecast.

(*b*) The constitution of a small travelling commission to enquire into local interests affecting railway schemes.

(*c*) The editing and publication in a suitable form yearly of lists of railway projects submitted for the consideration of the Government of India; from these lists purely strategic railways will be excluded.

The travelling commission is to sit and take evidence in public and will be open to interested parties. If the results of the investigations carried out by the commission appointed for this year should prove satisfactory, it is possible that such a commission may become part of the regular machinery for the administration of railways in the future, and it may develop into a permanent railway commission as is described in Chapter V. of the Indian Railways Act IX. of 1890.

Notice of intention to purchase the Great Indian Peninsula Railway by Government was served on the Great Indian Peninsula Railway Company, both in England and in India, on the 18th August 1899.

In August 1899, agreements between the Board of Control of the Bháv-nagar-Gondal-Junágad-Porbandar Railway and the proprietors of the Jetalsar-Rájkot and Dhrángadrá Railways for the working of the latter lines were approved by the Government of India.

On the 6th September 1899, the Secretary of State entered into an agreement with the Maler Kotla and Jhind Durbars for the construction, maintenance, and working of the Ludhiana-Dhuri-Jakhal Railway by the agency of the North-Western State Railway.

A Traffic Conference of railway delegates assembled at Simla in September 1899, under the orders of the Government of India. The efforts of the conference were mainly directed towards (*a*) drawing up rules with the view to making the Indian Railway Conference regulations binding on all railway administrations, who are parties to the conference, and (*b*) revision of the regulations of 1893. The principal feature in (*b*) is the adoption of the principle of payment for the use of foreign railway's vehicles by time instead of by mileage and demurrage, as in the Conference regulations of 1893.

The revised terms on which the Secretary of State is prepared to continue the working of the East Indian Railway by the existing agency on the expiry of the contract of 1879 having been settled, a subsidiary contract was entered into on the 14th November 1899 between the Secretary of State and the East Indian Railway Company, which gave the company the right of working the line for a further period of 20 years, viz., to the 31st December 1919.

With a view to secure the free movement of food-grains and fodder in connection with the prevailing scarcity in India, the Government of India, in November 1899, requested the railway authorities to take such action in the matter of lowering the railway rates and assimilating the upward and downward rates as the circumstances of the case may demand. Earthwork has also been sanctioned for famine relief purposes on certain projected railways in the localities affected by famine.

The Marwar (Jodhpur) and Bikaner Durbars have accepted a draft agreement between the Government of India and the Durbars for the construction of a railway on the metre gauge from Balotra to Hyderabad (Sind) and for the working of the British section of the line from the Jodhpur frontier to Hyderabad by the administration of the Jodhpur-Bikaner railway.

The rules for the Claims Arbitration Committee for Southern India, which was formed in July 1895, were revised in 1899. A similar committee is being formed for Northern India.

The Government of India have under consideration the proposal for the substitution, on all railways in India, of a monthly for a weekly system of station accounts. The question was referred for the opinion of the Railway Traffic Conference of 1899, who have suggested that the Government of India might depute an officer to enquire into the matter.

Negotiations are in progress for the working of the Rajputana-Malwa railway and connected State lines by the Bombay, Baroda, and Central India Railway Company during the interval between the 30th June 1900, when the present arrangements for working these lines will terminate, and the end of 1905 when Government will have the option of purchasing the Bombay, Baroda, and Central India Railway on expiry of the contract. RAILWAYS

No new railways were sanctioned during the year under the "Branch line terms" resolution of 1896, but negotiations in regard to the following have been in progress:

	Miles.
Bhágalpur-Bausi-Baidyanáth	69
Ahmadpur-Baidyanáth	63
Kurnool Road-Kurnool	36
Nadiád-Kapadvanj	28
Tilágaon-Sylhet	35
Aukhaura-Bhairab Bazar	18½
Fatehpur-Márkundi	63

In paragraph 8, Part I., of the railway administration report for 1898–99, the Láksám-Noakhali-Ichakhali and Bezwada-Masulipatam branch railways were mentioned as offered for construction at the sole risk of the promoters. The construction of these branches is now being negotiated under the rebate terms of the resolution referred to above. The negotiations, which were in progress, for the construction of the undermentioned lines have since been concluded:

	Miles.
Amritsar-Tarn Tarn-Sarhali	30
Sabarmati-Dholka	33
Chandipur-Taki	39

The transactions of the original guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates:—

	Total Capital Outlay.	Net Revenue.	Guaranteed Interest.	Interest in Excess of Revenue.	Net Revenue in Excess of Interest.	Surplus Profits.
Half-year ended the 30th June 1898.						
	£.	£.	£.	£.	£.	£.
Great Indian Peninsula	26,034,701	950,481*	601,178	—	349,303	328,711
Bombay, Baroda, and Central India	10,192,132†	450,569	224,254	—	226,315	226,315
Madras	11,238,594	212,878	267,573	54,695	—	—
TOTAL £.	47,465,427	1,613,928	1,093,005	—	520,923	555,026
Half-year ended the 31st December 1899.						
Great Indian Peninsula	26,055,107	495,229	594,212	98,983	—	—
Bombay, Baroda, and Central India	10,258,862†	285,646	225,000	—	60,646	60,646
Madras	11,313,886	264,339	267,573	3,234	—	—
TOTAL £.	47,627,855	1,045,214	1,086,785	41,571	—	60,646
TOTAL for the Year 1899 £.	47,627,855	2,659,142	2,179,790	—‡	479,352	615,672
TOTAL for the Year 1898‡ £.	46,957,625	2,633,365	2,169,926	—	463,439	622,847

* Including 20,592*l.* paid to Government as rent for the State lines leased to the Great Indian Peninsula Railway Company.

† Excluding the State outlay on the Pátri branch, 80,841*l.*

IRRIGATION.

IRRIGATION.

The nature of the climate and the inequalities of the rainfall will account for the great antiquity of the practice of irrigation in India. Many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. In the Madras Presidency alone there are some 60,000 tanks. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works in Madras, the Bombay Deccan, and in Ajmere-Merwara.

In size the tanks vary from the small works formed by earthen embankments thrown across local drainages, often of only two or three square miles in area, to the costly reservoirs constructed by the Imperial Government, such as the Periyar and Rushikulya Works, the reservoirs of which have surface areas of 6,395 acres and 7,900 acres respectively.

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the North-Western Provinces, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions, viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Upper Ganges Canal, which has been in operation since 1854, and has cost £1,997,588, comprises 459 miles of main canal, and 4,327 miles of distributaries, and in the year under review supplied water to 901,602 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost £1,617,056, and consists of 319 miles of main channels and 2,714 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 372, and 844 miles, and together irrigate upwards of 2,000,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results. The irrigation from them is, however, to some extent precarious. If the annual flood from the melting of the snows of the Himalayas does not sufficiently raise the level of the water in the river, it is impossible to pass the necessary volume of water on to the fields or even to give any water at all to many of them.

The works to which the preceding paragraph applies, in most cases, take off from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in the Bombay Presidency, where irrigation is largely dependent on storage works.

In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "Major" or "Minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "Minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept. IRRIGATION.

The distinction implied in the words "Major" and "Minor" is not in complete correspondence with the facts, as there are some Minor Works which are of more importance than some Major Works. But, speaking generally, the "Major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed, by British officers.

The following statement gives a general view of the results obtained from working the canals, for which full accounts are kept, for 1898-99 and the two previous years:—

	Capital Outlay (Direct and Indirect) to End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	£	£	£	£	£	Acres.
Major Works - - -	23,223,076	2,176,733	698,269	1,478,464	6·37	9,857,823
Minor Works - -	3,607,171	374,034	168,276	205,758	5·70	2,168,362
TOTAL for 1898-99 -	26,830,247	2,550,767	866,545	1,684,222	6·28	12,026,185
TOTAL for 1897-98 -	26,282,261	2,662,298	825,858	1,836,440	6·99	13,028,306
TOTAL for 1896-97 -	25,773,712	2,409,176	840,986	1,568,190	6·08	12,740,545

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the North-West provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the North-Western Provinces and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

IRRIGATION.

The following table gives the mileage of the irrigation canals in operation in each province, with the area irrigated during the year, and the estimated values of the crops raised by means of irrigation from the works :—

	Bengal.	North-West Provinces and Oudh.	Punjab.	Madras.	Bombay, including Sind.	Baluchistan.	Rajputana.	TOTAL.
MAJOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Main Canals - -	700	1,607	1,620	2,104	1,155	Nil.	Nil.	7,186
Distributaries - -	2,644	10,389	7,778	5,828	332	Nil.	Nil.	26,971
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated - -	713,443	2,152,338	3,459,759	2,775,782	756,501	Nil.	Nil.	9,857,823
MINOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals - -	47	—	1,813	1,365	2,092	4	Tank irrigation.	5,323
Distributaries - -	—	618	319	1,184	228	41		2,390
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated - -	—	103,117	664,213	563,597	806,222	5,653	25,560	2,168,362
	£.	£.	£.	£.	£.	£.		
Estimated value of crops raised by Major and Minor Works.	1,586,343	4,950,471	8,861,438	5,693,679	282,681	10,997	—	—

Besides the works to which the preceding paragraphs apply, there is a large class of works, especially in Sind and Madras, for which capital accounts are not kept.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The following statement gives the mileage of canals open to navigation during the year under review :—

PROVINCE.	Irrigation Canals open to Navigation.	Canals designed for Navigation only.	TOTAL.	Number of Passengers Carried.	Estimated Value of Cargoes.
	Miles.	*Miles.*	*Miles.*	*No.*	£
Bengal - - -	495	1,339*	1,834	541,327	6,807,067
Punjab - - -	432	—	432	15,301†	—
North-West Provinces and Oudh - -	537	—	537	235	276,978
Madras - - -	990	262	1,252	562,071	2,918,838

* Includes Nuddea rivers and Calcutta and Eastern Canals. † Sirhind Canal only.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

Bengal.

The progress of irrigation on the three large irrigating works, the Orissa, Midnapore, and Sone Canals fluctuates from year to year, but on the whole

there is steady progress. In the year of the famine 1896-97, the area irrigated was the highest on record, but in the two years which followed the area watered did not fall to its former level, but was over 700,000 acres in 1897-98 and over 710,000 acres in 1898-99. This increase in the irrigated area shows that the people are realising more and more that the use of canal water both assures their crop and increases its outturn. IRRIGATION.

The general results for 1898-99 of working all the irrigation and navigation systems, for which full accounts are kept, are compared with the results of the five previous years in the following statement:—

YEAR.	Capital Outlay to end of Year.	Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	£	£	£	£		Acres.
1893-94 - -	4,982,918	157,309	138,617	18,692	0·3	556,065
1894-95 - -	5,019,020	144,652	133,940	10,712	0·2	509,811
1895-96 - -	5,040,389	136,850	116,496	20,354	0·4	579,933
1896-97 - -	5,074,920	168,434	121,912	46,522	0·9	809,467
1897-98 - -	5,103,735	185,376	121,695	63,681	1·89	703,190
1898-99 - -	*5,112,735	163,335	129,362	33,973	0·66	710,544

* Includes £40,404 and £10,358 expended on two abandoned projects, viz., Tirhut and Damodar projects.

There are in Bengal four canal systems which are classed as Major Works. Three of these combine irrigation with navigation, and the fourth (Hidgellee Tidal Canal) is purely a navigation work.

The financial results obtained from the working of the Major and Minor Works during the year under review are shown in the following statement:—

CANAL.	Capital Outlay to end of Year.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
Major Works:	£	£		Acres.
Orissa Canals - - - -	1,758,210	—1,981	—	194,847
Midnapore - - - -	564,361	—3,016	—	74,901
Tidal Canal - - - -	174,349	1,618	·93	—
Sone Canals - - - -	1,784,033	30,877	1·73	440,796
Total Major Works - - -	4,280,953	27,498	1·14	710,544
Minor Works:				
Calcutta and Eastern Canal -	430,750	8,573	1·99	—
Orissa Coast Canal - - -	302,160	—612	—	—
Sarun Project - - - -	48,105	248	·52	—
Total Minor Works - - -	φ781,015	8,209	2·03	—

φ Excludes the sums spent on the Tirhoot and Damodar projects.

IRRIGATION.

The Calcutta and Eastern Canals, which are the most profitable of the canal works in Bengal, are navigation works designed to maintain communication between Calcutta and Eastern Bengal, through the Sunderbunds. The Orissa Coast Canal, also a navigation work, forms, with the Hidgellee Tidal Canal, a complete line of communication between Calcutta and Orissa; and in the event of famine in the latter district would be very useful as a means of importing food.

Besides the Minor Works mentioned in the foregoing statement, there are four works of this class for which capital accounts are not kept, viz., the Nadia rivers system, the Gaighatta and Buxi Khal, and the Eden and Madhuban Canals. The first-named, which comprises about 470 miles of channel, is used for navigation purposes only. The net revenue from the Nadia rivers shows a slight improvement over that of 1897–98, but this is only due to apportionment of establishment charges, and as railway communication develops these rivers must probably continue to decrease in importance.

In the following statement the traffic on the canals in Bengal in 1898–99 is shown in comparison with the traffic results of the previous year. The Nadia rivers are included in this statement:—

YEAR.	Length of Canal open for Navigation.	Receipts.	Maintenance Charges.	Net Receipts.	Estimated Value of Cargoes.	Number of Passengers.
	Miles.	£	£	£	£	
1897-98 - -	1,834	74,485	33,903	40,582	8,038,122	588,518
1898-99 - -	1,834	66,816	39,820	26,996	6,807,067	541,327

The capital expenditure for the year amounted to £8,936, viz., £2,600 on major works, and the remainder on minor works, chiefly on the Calcutta and Eastern Canals.

North-West Provinces.

In the North-West Provinces, the results of the irrigation operations during 1898–99 were very satisfactory.

Taking the revenue actually realised, the general results of the year's working are compared with those of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue to Capital.	Area Irrigated during the Year.
	£	£		Acres.
1893-94 - - - -	5,524,436	293,285	5·31	1,645,197
1894-95 - - - -	5,573,388	285,411	5·12	929,461
1895-96 - - - -	5,661,010	178,658	3·16	2,010,021
1896-97 - - - -	5,770,535	415,852	7·21	3,023,884
1897-98 - - - -	5,862,864	507,726	8·66	2,511,173
1898-99 - - - -	5,806,936	391,626	6·59	2,384,190

Excluding the Betwa Canal, which is a protective work, the major works earned a profit of 7·01 per cent. on their capital outlay. The individual returns from the four works were as under:—

CANAL.	Percentage of Net Revenue (actually realised) on Capital.
Upper Ganges - - - - -	9·29
Lower Ganges - - - - -	4·04
Agra - - - - - -	4·50
Eastern Jumna - - - -	28·13

For the second time since its opening in 1885 the Betwa Canal, the only "protective" work in these provinces, has again returned a revenue which is more than sufficient to cover the working charges of the year.

The minor works comprise the Dun, Rohilkhand, and Bijnor Canals, and the Bundelkhand Lakes. The net revenue from these works amounted to £9,712, which gave a percentage of 5·2 on the capital outlay of £183,920.

The area irrigated by all the canals was approximately 2,255,455 acres, which has only been exceeded by the returns of the previous two years.

The water was distributed from 40,681 outlets to 11,448 villages. Of the total area irrigated, 895,389 acres were under wheat, 144,910 under indigo, 261,808 under sugar cane, and 167,798 under rice.

The value of the crops irrigated is estimated at 7½ crores, a sum almost exactly equal to the amount of capital invested in canals in these provinces. The average value of the crop per acre is Rs. 33. The average rate paid by the occupiers for the use of the water is Rs. 3·85 per acre, or about 11·7 per cent. of the value of the crop.

The capital expenditure of the year amounted to £78,005, most of which was spent on the Lower Ganges Canal, and the new Fatehpur Branch, and on the special works for the protection of the Narora Weir.

Of the 1,463 miles of main and branch canals of the North-West Provinces and Oudh, 537 miles on the Upper and Lower Ganges, and Agra Canals, were open to navigation during the year.

The navigation operations on the irrigation canals are not profitable. The figures for the last five years are given in the following statement:—

YEAR.	Excess of Working Expenses over Receipts.
	£
1894-95 - - - - - -	183
1895-96 - - - - - -	84
1896-97 - - - - - -	471
1897-98 - - - - - -	525
1898-99 - - - - - -	612

In addition to the area irrigated by the canals under the direct control of the Irrigation Department, there were 130,388 acres irrigated during the year by the Tarái and Bhábar Canals under the Commissioner of Kumaon.

Punjab. The year under review, no less than 1897-98, has been one of remarkable financial prosperity for the Punjab Canals. The gross direct income exceeds that of the previous year by £19,998, and amounts to £8,491,146, which with the indirect revenue of £1,156,128, brings the total gross revenue of the Canals to £9,647,274. Owing to the working expenses, including cost of extensions and improvements charged to the revenue account, the net direct income of the year is about £11,600 less than in 1897-98. The value of the crops raised by canal irrigation during the year, adopting moderate rates per acre for the different classes, is estimated at over thirteen crores of rupees.

IRRIGATION.

The general results of the year's operations for all works are shown in the following table in comparison with the records of the four previous years:—

YEAR.	Capital Outlay to end of Year.	Area Irrigated.*	Assessed Revenue.*
	£	Acres.	£
1894–95	5,239,085	2,781,663	513,389
1895–96	5,469,040	3,458,544	737,250
1896–97	5,745,234	4,164,920	905,978
1897–98	5,956,888	4,805,911	1,004,566
1898–99	6,134,972	4,123,972	983,796

* Includes Muzaffargarh Canals.

The above figures are exclusive of the Native States portion of the Sirhind Canal and Sirsa branch.

Taking the actual revenue collected during the year, the following table compares the individual results obtained from all the works for which full accounts are kept:—

CANALS.	Length of		Capital Outlay to end of Year.	Net Revenue collected in Year.	Percentage of Net Revenue on Capital Outlay.
	Main and Branch Channels.	Distributaries.			
Major Works:	Miles.	Miles.	£.	£.	
Perennial Canals:					
Swat River	22	182	268,619	23,114	8·60
Western Jumna (including Sirsa Branch).	359	2,022	1,107,960	125,300	11·31
Bari Doab	353	1,167	1,210,138	159,424	13·17
Sirhind (British portion)	319	2,714	1,617,056	135,580	8·38
Chenab	406	1,514	1,616.076	131,566	8·14
Sidhnai	63	131	79,932	9,843	12·32
Jhelum	—	—	42,609	—	—
Inundation Canals:					
Lower Sohag and Para	98	48	47,993	5,543	11·55
Minor Works:					
Upper Sutlej	216	188	55,764	7,014	12·58
Lower Sutlej and Chenab	787	19	8,397	12,738	151·69
Indus	687	–	47,175	15,690	32·25
Shahpur (Imperial)	79	94	13,872	2,532	18·25
TOTAL	3,389	8,079	6,115,591	628,344	10·27

On the Native States branches of the Sirhind Canal the area irrigated was 361,699 acres against 345,431 acres in the preceding year.

The estimated value of the crops raised on land irrigated by the Imperial canals (including the branches in Native States) was £8,861,438, giving a rate of £1·86 per acre. The principal crop was, as usual, wheat, of which there were 1,872,684 acres under irrigation.

The capital outlay on Imperial works for the year amounted to £178,082, of which £103,177 was expended upon the Chenab Canal. This canal is practically completed. On the Western Jumna Canal there was an expenditure of £27,185.

On the Jhelum and Ghaggar Canals, which were started in 1896–97 as famine relief works, £28,990 and £2,048 respectively were expended during the year. IRRIGATION.

The navigation operations on the Western Jumna and Sirhind Canals resulted in a profit of £3,126. The profit realised on the Western Jumna Canal was £3,364. The Sirhind Canal was worked at a loss of £237.

The following figures show the rapid development of irrigation since the Chenab Canal was first opened in 1892–93, when 157,197 acres were irrigated:—

Year.	Capital Outlay to end of Year.	Area Irrigated during the Year.	Net Revenue during the Year.	Return on Capital Outlay.
	£.	Acres.	£.	Per Cent.
1892–93	721,233	157,197	— 4,084	— 0·57
1893–94	878,034	270,405	3,552	0·40
1894–95	995,032	269,357	9,611	0·96
1895–96	1,174,781	369,935	51,632	4·40
1896–97	1,362,075	520,279	92,629	6·75
1897–98	1,512,916	810,000	111,041	7·34
1898–99	1,616,076	957,705	131,566	8·14

This rapid development of irrigation has occurred in a tract the greater part of which was absolutely unpopulated in 1892, but this has all been changed by the highly successful operations by which colonies of settlers have been established in these crown wastes *pari passu* with the construction of the Canal. The Chenab Canal has cleared its interest debt within 10 years of the commencement of the work, and the accounts now show a balance of net revenue amounting to £20,635.

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works, and navigation channels. BURMA.

In Upper Burma there is only one major irrigation work, namely, the Mandalay Canal, which was sanctioned in 1896. The project provides for a canal to take off from the Madaya river, 39 miles long, with 86 miles of distributaries, and is expected to irrigate 72,000 acres of land. The total capital outlay on the Mandalay Canal amounted at the end of 1898–99 to £101,263.

Much was done in improving and maintaining existing minor irrigation works in the Meiktila, Yamethin, Myingyan, and Kyaukse districts. The canals in the Kyaukse district are the most important. The restoring of the Kanna Tank, an old Burman work, was taken up as a relief work. It is being completed as an ordinary work, and is estimated to cost £178,697, of which £7,920 had been spent at the end of 1898–99.

The report on Irrigation in Ajmere-Merwara had not been received when this Statement went to press. AJMERE-MERWARA.

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department. MADRAS.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snows on distant mountain ranges.

In the year under review the rainfall was more abundant than in the preceding year, and the season was on the whole favourable.

IRRIGATION.

There are at present 10 "major" works and 26 "minor" works, for which Capital and Revenue Accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 26 minor works for which full accounts are kept, 22 are irrigation systems, and four are tidal canals intended for purely navigation purposes.

Of the works for which full accounts are kept the length of completed main canal was 3,775 miles, and of distributary channels 7,012 miles. The area irrigated during the year by these works was 3,339,379 acres, the crops grown being valued at £5,693,679.

Taking all the works for which full accounts are kept, the general results of the year's working compared with those of the four previous years will be seen from the following statement:—

YEAR.	Capital Outlay.	Area Irrigated.	Net Actual Revenue.	Percentage of Net Revenue on Capital.
	£.	Acres.	£.	
1894-95 - - - -	5,538,106	2,886,483	346,705	6·2
1895-96 - - - -	5,689,647	2,940,317	364,758	6·4
1896-97 - - - -	5,815,502	3,129,859	356,901	6·1
1897-98 - - - -	5,919,671	3,241,728	421,602	7·1
1898-99 - - - -	5,988,198	3,339,379	445,812	7·44

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be 768,489*l.*

The results of the year's working for the major works in operation are shown by the following figures:—

WORK.	Area Irrigated.	Capital Outlay.	Net Revenue.	Percentage of Net Revenue on Capital.
	Acres.	£	£	
Godaveri Delta - - - -	776,493	871,034	161,479	18·42
Kistna Delta - - - - -	566,277	893,108	134,279	15·05
Pennér Anicut - - - -	72,192	126,612	10,426	8·23
Sangam Anicut - - - -	78,261	258,574	10,425	4·03
Kurnool-Cuddapah Canal - -	48,810	1,448,300	2,959	0·20
Barur Tank - - - - -	4,901	28,336	500	1·77
Cauvery Delta - - - - -	994,118	140,822	58,520	41·56
Srivaikuntham Anicut - - -	42,740	98,495	5,460	5·54
Periyar Project - - - -	109,025	578,773	9,582	1·66
Rushikulya (Protective Work) - -	82,965	313,282	2,916	0·93
TOTAL - - -	2,775,782	4,757,336	396,546	8·31

The minor works irrigated an area of 563,597 acres, and earned a net revenue of £50,262, equivalent to a percentage of 4·08 on the capital expended on them. The purely navigation works, with the exception of the Buckingham and the Gaiyam Gopalpur Canals, were in each case worked at a small loss.

Besides the works referred to in the foregoing paragraphs, there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The irrigation revenue derived from these works in 1898–99 was £465,164 more than in the previous year, and the area irrigated by them was 3,350,560 acres. A plan for the systematic repair of some of these works has now been in progress for some years, under the title of the "Tank Restoration Scheme." Up to the end of the year an expenditure of £473,000 had been incurred under this scheme, 38,395 square miles had been investigated, and estimates for 5,498 works had been prepared. IRRIGATION.

The capital expenditure for the year on the major works amounted to £38,916. This expenditure was incurred chiefly on the Kistna, Cauvery, Periyár, and Rushikulya works. On the latter project over £300,000 has now been expended, against an estimate of £3,170,666.

There are 36 irrigation works in operation in the Bombay Presidency, of which nine are classed as Major Works. The canals in this Presidency are generally small, and the water being, in most cases, drawn from small rivers and local streams, more or less dependent on rainfall, a constant supply cannot be maintained without the aid of storage reservoirs. In fact, the reservoir projects, of which there are 27, include the more important works, such as the Bhátghar reservoir, the Lake Fife Works, and the Mhasvad and Ekruk tanks. Bombay, excluding Sind.

The total area irrigated in 1898–99 was 103,849 acres, against 126,516 acres in 1897–98, or a decrease of 22,667 acres. This decrease was distributed over nearly all the canals

A comparative statement of the results from those works, for which full accounts are kept, for 1898–99, and the preceding four years, is given in the following table:—

Year.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	£	Acres.	£	£	£
1894–95 - - -	1,741,167	84,237	37,565	23,394	14,171
1895–96 - - -	1,750,749	74,923	39,922	19,619	20,303
1896–97 - - -	1,757,324	118,004	37,226	23,996	13,230
1897–98 - - -	1,772,069	126,516	42,386	26,926	15,460
1898–99 - - -	1,780,253	103,849	46,451	22,453	23,998

The net revenue realised for the year represents a return of 1·35 on the capital expenditure, as compared with 0·87 in the preceding year. The major works in operation produced a net revenue equivalent to 1·65 per cent. on the capital of £1,268,641 expended on them.

The most important of the major works, judged by the amount of capital expenditure, is the Mutha Canal system with the Lake Fife Reservoir, which in 1898–99 irrigated an area of 8,045 acres, besides supplying the cantonment and civil station of Poona with water. The total expenditure on this work is £442,422, and in the year under review the net revenue was equivalent to a return of 2·58 on the capital outlay. The most remunerative work in the "major" class was the Krishna Canal, which produced a return of net revenue equivalent to 4·14 per cent. on the capital expenditure. The works known as the Nira Canal and Bhátghar Reservoir, which are classed as protective, are estimated to cost £406,962 when complete, and will be capable of irrigating 56,640 acres. The return on capital outlay yielded by these works in 1898–99 was 1·38 per cent.

IRRIGATION.

The minor works, for which full accounts are kept, earned a net revenue during the year of £1,452, equivalent to a return of 0·35 on the capital outlay.

The capital outlay during the year on all works amounted to £8,183, which was incurred principally on the Nira Canal, the Stretphal Tank, the Matha Canals, and the Gokak Canal.

The total value of the crops irrigated is estimated at £282,681, against £362,071 in the previous year.

In the minor class of works, for which distinct capital and revenue accounts are not kept, the expenditure for the year amounted to £15,151, and the revenue realised was £37,795, giving a net revenue of £22,644. The area irrigated by the works of this class was 146,364 acres.

Sind.

The Report on Irrigation in Sind had not been received when this Statement went to press.

Baluchistan.

There are no "major" works in Baluchistan. The class of "minor" works is represented by two schemes now in operation, viz., the Shebo Canal, and the Khushdil Khan Reservoir, the former of which has cost £45,148, and the latter £62,370.

In the year under review the net revenue from the Shebo Canal was £872, or 2·0 per cent. on the capital outlay.

The net revenue from the Khushdil Khan Reservoir was £1,342, or 1·79 on the capital expenditure.

The area irrigated by these two works was 5,653 acres, as compared with 5,552 acres in the preceding year. The value of the crops raised was £10,997.

BUILDINGS AND ROADS.

BUILDINGS AND ROADS.

The buildings and roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including light-houses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., Military and Civil Works. The military works are executed entirely from Imperial funds.

The expenditure on Civil Works is chiefly met from provincial and local resources. The classification of the expenditure for 1898–99 under the heads referred to is shown in the following table:—

———	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	GRAND TOTAL.
	£.	£.	£.	£.	£.	£.	£.
Military Works - -	755,118	- -	- -	755,118	35,020	17,580	807,718
Civil Works - - - -	272,646	1,662,794	1,070,199	3,005,639	66,028	33,148	3,104,815
TOTAL, 1898–99 - -	1,027,764	1,662,794	1,070,199	3,760,757	101,948	50,728	3,912,533
TOTAL, 1897–98 - -	907,773	1,505,345	1,042,673	3,455,791	100,332	56,499	3,612,622
TOTAL, 1896–97 - -	1,182,382	1,421,187	1,123,416	3,726,985	77,397	51,146	3,855,528

This statement does not include the outlay from imperial revenues recorded under the head of Special Defence Works, which amounted to £63,073 in 1896–97, £15,805 in 1897–98, and £975 in 1898–99.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers. BUILDINGS AND ROADS.

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

MILITARY WORKS.

The total expenditure on Military Works, ordinary and special, amounted to £808,694 in 1898–99, against £795,726 in 1897–98. The cost of Special Defence Works amounted to £975 only, against £16,803 in the previous year. MILITARY WORKS.

The expenditure of £807,719 on ordinary military works included an outlay of £310,196 on new works, of £245,465 on repairs, and of £194,919 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and Native troops cost over £130,000, while General Cantonment Works figured at £66,449.

The total amount expended on Special Defence Works up to the close of 1898–99 (exclusive of contributions from imperial revenues) was £3,052,956. These works are now almost complete.

CIVIL WORKS.

CIVIL WORKS.

The following statement shows the distribution of the total outlay in India on Civil Works among the different provinces :—

EXPENDITURE in *India* on CIVIL WORKS in 1898–99.

	India, General and Political.	Bengal.	North-West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
Expenditure by Public Works Department :	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Civil Buildings - - - -	41,638	145,563	99,445	83,246	146,193	20,897	52,260	80,667	83,572	760,481
Communications - - -	38,091	55,138	154,144	110,854	163,730	66,388	132,940	22,861	111,179	855,325
Miscellaneous Public Improvements.	38,210	4,846	7,590	19,260	17,472	2,343	9,621	5,186	7,370	111,898
TOTAL Works and Repairs -	117,939	205,547	258,179	213,360	327,395	89,628	194,821	108,714	202,121	1,717,704
Establishment - - - -	27,744	60,236	72,200	54,821	78,556	28,671	35,886	54,352	66,231	478,697
Tools and Plant - - -	1,768	2,221	1,584	3,074	4,844	1,000	3,978	9,702	3,444	31,615
Profit and Loss, Suspense, &c. -	— 168	— 4,092	— 1,831	1,609	— 3,004	— 252	— 1,275	2,484	— 1,139	— 7,668
TOTAL Expenditure by Public Works Department - -	147,283	263,912	330,132	272,864	407,791	119,047	233,410	175,252	270,657	2,220,348
Expenditure by Civil Department -	838	292,229	52,170	16,810	42,347	10,623	4,248	286,656	72,350	778,271
TOTAL Expenditure in India -	148,121	556,141	382,302	289,674	450,138	129,670	237,658	461,908	343,007	2,998,619

The following abstract shows the total sums expended in India, by both the Public Works Department and the Civil Department, under the three heads of Buildings, Roads, and Miscellaneous Public Improvements. As in the previous statement, military works are not included :— CIVIL WORKS.

	By Public Works Department.	By Civil Department.	TOTAL.
	£.	£.	£.
Civil Buildings	750,481	47,612	798,093
Communications	855,325	496,118	1,351,443
Miscellaneous Works	111,898	63,880	175,778
TOTAL Works and Repairs	1,717,704	607,610	2,325,314
Establishment	478,697	126,260	604,957
Tools and Plant	31,615	7,040	38,655
Profit and Loss, Suspense, &c.	−7,668	37,361	29,693
TOTAL	2,220,348	778,271	2,998,619

The expenditure in England consists to a great extent of furlough and absentee pay and allowances of military and civil officers of the Public Works Department. It also includes the expenses of the Royal Indian Engineering College at Cooper's Hill, which amounted in 1898–99 to £26,363. The revenue of this institution for the year was £30,519.

The following more detailed account of the operations of this branch of the Public Works Department for the year under review is given under the heads of the different provinces in which the expenditure was incurred.

In Bengal the expenditure for the year on civil works was as follows :— Bengal.

	£.
Imperial—Civil	13,749
Provincial	197,766
Local	118,582
TOTAL	330,097

The greater part of the expenditure from provincial funds was upon the construction and repair of buildings and communications. North-Western Provinces and Oudh.

The expenditure on buildings and roads in the North-Western Provinces and Oudh for 1898–99 was smaller than in the two previous years.

The outlay under the different heads of service was as follows :—

	£.
Imperial—Civil	13,783
Provincial	197,766
Local	130,582
TOTAL	330,131

During the year the building for a bacteriological laboratory at Mukhtesar was completed, with the exception of certain additional works required in con-

CIVIL WORKS.

nection with the laboratory. The works at Naini Tal, which include the erection of a new Government House on the site formerly occupied by the Diocesan Boys' School, and the building of a new school on another site was completed and made over to the school authorities. The construction of new drainage works at Naini Tal were also put in hand.

The monsoon of 1898 caused even more damage to communications in the Kumaon Division than its predecessor, and the heavy rainfall in August 1898 also caused great damage to the approaches to Naini Tal, the cost of repairing which is estimated at £5,300.

Punjab.

In the Punjab the expenditure was considerably smaller than in the preceding year. The outlay on civil works was as follows:—

	£.
Imperial	30,661
Provincial	188,613
Local	53,257
Total	272,864

The most important works under the head of Imperial were the reconstruction of the old building at Simla known as "North View," the adaptation of the house at Simla known as "Willie Park," the former as a telegraph office and the latter for the requirements of the press employés; additions to the levy post at Khajuri Katch and an alternative route for pack traffic from Murtaza to Sarwakai.

The provincial works included the building of the new Central Lunatic Asylum at Lahore, additions to the boarding house of the Government College in the same city, and the Rasul Jail to be used for prisoners employed in the digging of the Jhelum Canal; improving the section of the Hazara Trunk Road from Abbottabad to the boundary of the Kashmir territory and also the Mardan Charsadda Road besides the metalling and improving various other roads.

As regards miscellaneous public improvements, the works connected with the extension of Simla have had much attention. The water supply has now been increased to an amount which, will, at all events, be sufficient to meet the increased volume used for some years to come. Other improvements connected with the distribution of water are being investigated. Sewage works are next in importance, and for these, estimates are being prepared. After these will come the needed new roads and miscellaneous items. There is every reason to hope that the works really necessary for the present will be completed in 1901–1902.

Water supply schemes (either for extensions or for an original scheme were prepared for Delhi, Amritsar, and Lahore. The former has been started since the new official year began, and will probably want further extension before very long as Delhi is growing largely. The latter schemes wait for the provision of funds; all else is settled.

The comparative expenditure on civil buildings and communications was as follows:—

	Original Works.	Repairs.	TOTAL.
	£	£	£
Civil Buildings	52,324	30,932	83,246
Communications	33,262	77,591	110,853

Including station roads, the total road mileage at the end of the year was 26,027 miles, viz., 2,308 miles metalled, and 23,719 unmetalled. Boat bridges and ferries were maintained at various points on the Indus and its tributaries. At Dera Ismail Khan and Dera Ghazi Khan steam ferry services are worked in connection with the North-West Railway. The capital cost of all boat bridges and major ferries amounted to £36,869, and the cost of maintenance during the year was £8,620.

The total expediture for the year was £291,596. CIVIL WORKS.

No large civil buildings were undertaken during the year, but various new court houses and record rooms were either completed or commenced, and the large extensions of the Bassein and Toungoo jails were carried out and the construction of a jail at Myaungmya commenced. The extensions to Prome jail were also completed. Burma.

The wants of other departments also received attention, but no works of any unusual importance were undertaken.

The total length of roads maintained by the Public Works Department at the end of 1898–99 was 6,032·46 miles. Owing to the large demands for police and civil buildings the funds available for roads were very limited, and only 25·72 miles of metalled road were constructed during the year, and 80·75 miles of roads of other classes.

There was considerable expenditure on navigation works. Improvements to the Pegu-Sittang and Sittang-Kyaikto canals were in hand.

The amount of the normal expenditure for the year was :— Central Provinces.

	£
Imperial	1,888
Provincial	109,858
Local	7,300
TOTAL	119,046

The provincial buildings under construction were of the usual kind required for the different branches of the administration, such as tahsils, godowns, court houses, jails, police quarters, educational buildings, &c.

Many important roads were in hand, and surveys were carried out for further extensions amounting to 54½ miles.

The total length of roads maintained in the province during the year from public funds was :—

	Miles.
Metalled roads	1,664⅝
Unmetalled roads	5,097
TOTAL	6,761⅝

A further outlay of £691 was incurred on the Khandwa Waterworks and £5,100 on the Bhandara Waterworks.

There are two collieries managed by the Provincial Administration, viz., at Warora, in the Chanda District, and at Umaria, in the Rewah State. The total output from the Warora Mines was 132,502¾ tons, against 115,682 tons in the previous year, showing an increase of 16,820¾ tons. The net profit from the working of the colliery was £12,209, or 10·26 per cent. on the total capital outlay. The working of the Umaria Colliery resulted in a profit of £1,852, or 2·47 per cent. on the capital outlay. The output from this colliery was 153,540 tons, against 119,346 tons in 1897–98.

The total expenditure in Assam for the year was as follows :— Assam.

	£
Imperial—Civil	10,200
Provincial	173,495
Local	49,713
TOTAL	233,408

The expenditure on public works in Assam is mainly devoted to the maintenance and improvement of the road system, the outlay on buildings being comparatively small.

CIVIL WORKS.

The continued heavy charges under Provincial were due to the exceptional expenditure necessary to restore buildings and communications damaged and destroyed by the earthquake of 1897.

Madras.

The expenditure in Madras was as follows:—

	£
Imperial	5,017
Provincial	168,974
Local	19,886
TOTAL	193,877

In the classes of buildings and roads there were no imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local Civil Works.

In the districts the buildings under construction were of the usual type of taluk offices and cutcherries, court houses, and other buildings required by the different branches of the Administration. The outlay up to date on the public offices at Tanjore has been £9,694; the work is expected to be handed over by the end of 1899–1900. Good progress was made with the extension of the Normal and Unions Schools at Rajahmundry. The upper storey was completed and handed over for occupation on the 1st April 1899. The outlay on the work to the end of March 1899 was £3,640.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department, and there was some expenditure during the year on the maintenance and improvement of the Ootacamund-Kullar and Chundale-Mysore roads. The greater portion of the road system in Madras is, however, in the hands of the local boards, whose expenditure is not under the control of the Public Works Department. They maintain their own engineering establishments, though in some cases they employ the agency of the Public Works Department for particular works. In the year under review 24,515 miles were maintained.

An important feature in the Public Works of the Madras Presidency, owing to the length of its coast line, is the maintenance of its harbours and light-houses.

The works in connection with the extension of the Northern and Southern jetties at Cocanada were completed, and good progress was made during the year in the construction of certain lighthouses along the coast.

The only works under execution in connection with famine relief during 1898–99 were the Nandanavanam Tank, the Duthalore-Pamur, and the Kanigiri roads. Owing to early rains in May the number on relief fell off, the Nandanavanam tank work was then closed, and all labour was concentrated on the other two works. The heavy rains in September caused the closure of these works in October.

Bombay.

The expenditure on civil works in the Buildings and Roads Branch in the Bombay Presidency for 1898–99 was as follows:—

	Rx.
Imperial	14,474
Provincial	182,947
Local	73,236
TOTAL	270,657

The whole of the imperial expenditure was devoted to civil buildings. No new work of importance was undertaken during the year, the greater part of the outlay being spent in constructing offices and residential quarters for subordinate officers of the Salt, Customs, Post Office, and Telegraph Departments. During the year control of the Somáli coast works were transferred to the Home Government.

The expenditure from provincial and local funds under the head of Civil Buildings included the construction or improvement of a number of mamlatdar's offices, record rooms, bungalows, distilleries, and new lines for the Governor's body guard at Chaupati and quarters for bandsmen at Walkeshwar Road.

As in previous years, buildings and remains of archæological interest were kept in repair. Several high schools were completed during the year, and the construction of additional quarters for 50 students of the Agricultural School at Hyderabad was commenced. CIVIL WORKS.

The total outlay on communications during the year was about '21 lakhs of rupees. The total mileage of roads maintained from Imperial and Provincial funds was as follows :—

	Completed.	In Progress.
	Miles.	Miles.
Imperial - - - - - - -	35	—
Provincial - - - - - - -	3,619	70

There were in addition 4,076 miles of local fund roads in charge of the Public Works Department, of which 142 miles were in progress.

The planting and preservation of roadside trees continued to receive careful attention.

Under miscellaneous public improvements, the Ránder portion of the Surat and Ránder water supply works still remain to be completed. Substantial progress was made with drainage and sewerage works. The work of constructing roads and drainage on the Chanpáti estate at Bombay was completed, and also the drainage of the Arkilli Moat at Bijapur. Stone pitching to the right bank of the Narbada opposite Kaladra in the Nágra Táluka was commenced and completed during the year, the object being to protect the village against the scouring action of the river which had of late grown very serious.

The expenditure on public works in the Hyderabad Assigned Districts was as follows :— Berar.

	£.
Imperial - - - - - - - - -	1,229
Provincial - - - - - - - - -	51,716
Local - - - - - - - - - -	19,141
TOTAL - - -	72,086

The greater part of the year's outlay was upon the extension and repair of the road system. Considerable expenditure was incurred on tree planting on roadsides.

In Coorg there were no works in progress of sufficient importance to call for individual notice. The expenditure for the year on civil works amounted to £12,817. Coorg.

The length of road maintained by the Public Works Department was 178 miles from imperial funds, and 119 miles from local funds.

NATIVE STATES.

NATIVE STATES.

A full account of the public works in the districts under Native administration in India cannot be given, owing to the want of information in the case of some of the States. In the minor States the works are for the most part insignificant, but in the larger States there are works of importance, and some of considerable size, in many cases carried out by European engineers lent by the British Government.

The total expenditure by the Public Works Department of the Central India Agency in 1898–99 amounted to £23,648, the greater part of which was upon the extension and maintenance of roads. The most important works completed during the year were the Bonar River bridge on the Nowgong-Jhansi Central India.

NATIVE STATES.

Road, causeways across the Dhip and Gobir rivers and the Kulhar-Pathan Road. The total length of road communication maintained by the Department was 814 miles.

The operations of the Public Works Department in the Agency have been much reduced by the transfer to the chief Native States of the care of the metalled roads in their territories, which has been noticed in previous years' Reports. The duties of the Public Works Department lie not only in maintaining important lines of communication, such as the Agra and Bombay, Nimach and Mhow, and Nowgong and Sutna roads, and in designing and executing projects within territories which are too intermixed or too impoverished to be treated on the footing of the larger States, but also in advising the States that are capable of executing their own projects as to the direction in which their efforts may be most usefully exerted, and in inspecting the work done by the larger States on behalf of the Imperial Government.

Railways form the chief feature in the Native public works, and there is a growing tendency among the rulers of Native States to promote railway extensions within their borders. The Guna-Bara extension was completed, and good progress has been made on the line of the 2-feet gauge from Gwalior to Sipri.

About 907 miles of metalled road were maintained.

Rajputana.

The total outlay in 1898-99 on public works in Rajputana was £537,204, of which £510,973 was incurred in the Native States. The expenditure was larger than in the previous year, and the increase is mainly due to the large expenditure on the Shadipalli-Balotra metre-gauge line, Jodhpore section. This section will probably be opened for traffic in July 1900.

The metre-gauge line from Bikanir northwards as far as Khari is open for traffic. Work is in progress for the nine miles beyond Khari to Lankaransar, and surveys northwards towards Bhatinda are in hand.

The metre-gauge line between Sanganer on the Rajputana-Malwa Railway and Siwai-Madhopore, 73 miles in length, in the Jeypore State, has been sanctioned by the Secretary of State, and work has been commenced.

From 1st January 1898 the Meywar Darbar took over the management of their line, Chittorgurh to Debari, from the Bombay, Baroda, and Central India Railway Company, and are now working it by their own railway engineer. The extension of the line on the same gauge (metre) to Oodeypore was opened for public traffic in August 1899.

A considerable advance has been made in irrigation works, especially in Jeypore on the Ramgarh project and in Bhurtpore Bareta Bund system, the Cochein Canals and the Sikai Canals.

A mining engineer took over charge of the Palana Collieries in the Bikaner State. The coal from the collieries has been tried on both locomotive and stationary engines. In the latter it does very well, but in locomotives it has not hitherto given satisfaction, as it has been found impossible to keep up steam with heavy loads against gradients, and the coal often clinkers very badly.

The total length of roads maintained by the Native States in Rajputana during 1898-99 was 2,288 miles, in addition to about 722 miles maintained by the Imperial Government.

Madras.

In the Native States under the control of the Madras Government there was no event of importance to notice during the year in connection with public works.

In Travancore the total expenditure was £157,910, of which £54,200 were spent upon communications, £25,333 upon buildings, and £24,533 on irrigation. The total length of cart roads was increased to 2,007 miles.

In Cochin the expenditure was £41,574, of which £17,888 was upon buildings. The miles of roads maintained amounted to 422.

Bombay.

The Government of Bombay exercises political control over some 350 Native States, presenting numerous gradations of size, wealth, and civilisation.

NATIVE STATES.

Leaving out of account the railways, the amounts expended by the Native States under the control of the Government on public works during the year were generally small, and, excepting the Lalpuri waterworks, there were no individual works of unusual importance to be recorded. The most important group of Native States lies in North Gujarát, and covers an area of about 44,000 square miles. Of the chief States included in this area, Cutch expended £6,899; Palanpur, £3,628; Mahi Kantha, £4,244; and Cambay, £6,374. In the Káthiáwár States the outlay on public works amounted to £207,885, Bhávnagar heading the list with an expenditure of £50,962.

The largest amount expended in South Gujarát and North and South Konkim was in Bansda, where there was an outlay of £2,596, and in Aachin, £1,954. In the Deccan and South Mahrátha country the largest items were an expenditure of £22,083 in Kolhapur, and of £5,479 in the Sangli State.

CHAPTER XI.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

Post Office.

THE receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, are given in the following statement:—

Year.	Receipts.	Expenditure.	Net Revenue.
	£	£	£
1896-97 - - - -	1,188,983	1,132,104	56,879
1897-98 - - - -	1,252,311	1,153,057	99,254
1898-99 - - - -	1,275,972	1,149,937	126,035

The above figures include the charge on account of district post establishments, which is entirely met by grants from district post funds (only a very small portion of which is credited to the Post Office in the Finance and Revenue Accounts), and they exclude certain indirect charges in respect of the rent of Government buildings, cost of pensions, &c. If the figures for the year were recast on this basis, the surplus for 1898–99 would be £141,478.

The extent of the sphere of operations of the Post Office, and its development during the last three years, are shown in the tables in the margin. These figures are exclusive of the district post, of which the post offices increased from 1,479 in 1897–98 to 1,481 in 1898–99, the letter boxes from 3,827 to 3,997, and the staff of village postmen decreased from 3,000 to 2,920.

Year.	Post Offices.	Letter Boxes.	Village Postmen.	Length of Postal Lines.
	No.	No.	No.	Miles.
1896-97 - - - - -	9,948	16,950	4,388	86,019
1897-98 - - - - -	10,263	17,721	4,588	88,720
1898-99 - - - - -	10,505	18,617	4,722	90,395
Increase in 1898-99 over 1897-98 - - - -	242	896	134	1,675

Year.	Letters (including Postcards).	Newspapers.	Parcels.	Book and Pattern Packets.	Total.
	No.	No.	No.	No.	No.
1896-97 - -	386,950,269	29,778,291	2,708,769	19,341,398	438,778,727
1897-98 - -	408,797,236	31,891,484	2,965,990	21,364,415	465,019,125
1898-99 - -	419,134,096	32,122,502	3,040,236	23,039,424	477,336,258
Increase in 1898-99 over 1897-98 -	10,336,860	231,018	74,246	1,675,009	12,317,133

In addition to the 90,395 miles of Imperial postal lines shown in the statement, there were 35,082 miles of district post lines, and 1,551 miles of political and military lines administered by the Imperial Post Office, so that the total length of the lines over which mails were conveyed was 126,992 miles at the close of 1898–99, as compared with 126,351 miles at the close of the previous year. There was a slight increase under all heads except steamer lines, but the increase was greatest under the head of "railways." The use of light hand-carts, or "rickshaws," for carrying mails was further extended, especially in Bombay, and continues to be well reported on. The use of bicycles, which was tried last year in parts of the Madras Presidency and in Lahore, was extended during the year under review to the town of Bombay, with successful results. The experience gained so far shows that the bicycle

is not a suitable means of conveyance for mails over lines of any length in the interior of the country, but for short communications over good roads in, or in the vicinity of, the larger towns, it is clear that the services of runners can be efficiently and economically replaced by employing bicycle riders. POST OFFICE.

The general correspondence returns, of which a summary is given above, show an increase of over 12 millions of articles (excluding money orders) carried by post in 1898–99, as compared with 1897–98. Of this increase, over 10 millions were due to postcards, which, in Bengal, Bombay, the Punjab, and Eastern Bengal, exceeded the total number of paid letters.

The total number of articles received for delivery, including money orders, was over 489 millions, of which 99·09 per cent. were delivered. The net receipts of postal articles (other than money orders) at the dead letter offices for disposal were 3,982,336; of this number, 824,530 articles were disposed of by being re-directed, and then delivered to the persons to whom they were addressed, while 2,111,900 were returned to the senders, and 1,045,906 could not be disposed of. This last figure is only 0·2 per cent. of the total number of articles given out for delivery, and a large proportion of the articles were from their nature not capable of delivery. From special statistics kept by the Bengal dead letter office for three months, it appears that some 3,000 letters, 5,600 newspapers, and 1,800 packets were posted in the Bengal, Eastern Bengal, and Assam circles without any address at all.

A large amount of valuable property was, as usual, found in letters and other articles posted without addresses, or with addresses so incorrect or incomplete that the covers had to be opened in order that the senders might be traced. In articles opened in the five more important dead letter offices were found cheques, hundis, bills of exchange, currency notes, coins, and other property amounting in value to Rs. 3,88,201, 1,940*l.* 15*s.*, 180 francs and 420 dollars. Nearly the whole of this property was successfully delivered to the owners.

The number of postal articles, excluding money orders, issued per head of population for the whole of India was 1·67, against 1·63 in 1897-98. Per head of literate population, the percentage was 39·60, against 38·58 in the preceding year.

The letters and postcards despatched from India to the United Kingdom in 1898–99 are estimated at 3,312,445, against 3,068,417 in 1897–98, or an increase of 7·95 per cent. Those received in India from the United Kingdom are estimated at 4,226,195, against 3,598,444 in the previous year, or an increase of 17·44 per cent. The increase is, in both cases, largely to be attributed to the introduction of the lower rate of postage, one penny (or one anna) per half-ounce, which was in force during the last three months of the year.

The newspapers and packets despatched home from India show an increase of 6·21 per cent., but the number of such articles received in India from the United Kingdom showed a decrease of over 300,000 (or 4·73 per cent.), for which it is not easy to account.

The statistics of correspondence exchanged between India and foreign countries and colonial administrations used to be taken once in three years, alternately in May and November, and were last recorded in May 1896. The total number of letters and postcards exchanged with such countries was over 4¼ millions, and that of newspapers and book-packets nearly 3 millions. Under the terms of the Principal Convention of Washington, no further statistics are to be taken during the currency of that Convention.

The parcels exchanged with the United Kingdom formed more than 69 per cent. of the whole foreign parcel traffic. The parcels received from, and despatched to, the United Kingdom through the British Post Office, *viâ* Gibraltar, and *viâ* Brindisi, taken together, increased from 171,225 to 175,789; but the service *viâ* Brindisi was only established two months before the close of the preceding year. The number of parcels, both sent and received, through the Peninsular and Oriental Steam Navigation Company, without the agency of the British Post Office, continued to decrease.

In the exchanges with continental Europe, the number of parcels despatched from, and received in, India shows a slight increase. In the exchanges with other countries there was again a satisfactory development of the traffic in

POST OFFICE.

both directions. The increase in the number of parcels sent to non-European countries is again to be attributed mainly to the steady growth of the parcel post with Ceylon, while there was, at the same time, a distinct development of the traffic with the British East Africa Protectorate.

The receipts from the insurance of letters and parcels were £18,014, as compared with £17,703 in the preceding year. The number of insured articles was greater by 1·05 per cent., and the value by 1·01 per cent. Of the increase the larger part occurred in Madras, and was due in a great measure to the same cause as that which operated in Bombay in the preceding year, viz., the panic caused by the plague, which drove many of the Marwari and other foreign traders in Bangalore, Mysore, and other places to their homes. They resorted largely to postal insurance for the safe conveyance of their valuables to their native places.

The average value for which each article was insured was, in the case of letters, Rs. 264, as compared with Rs. 258 in the previous year, and in that of parcels, Rs. 324, against Rs. 327 in 1897–98.

The number of claims for compensation preferred in respect of insured articles was 72, as compared with 34 in the preceding year. Sixty-three claims were admitted, which involved the payment of £1,988, or 11·03 per cent. of the total amount realised from insurance fees, against a percentage of 2·65 in the preceding year; of the claims admitted, the loss was due in 11 cases to fraud or negligence on the part of the servants of the Post Office, and three were under inquiry at the close of the year. In two of the six claims rejected the contents of the insured parcels were declared at the office of posting to be gold, but were found on delivery to be pieces of lead and stones.

The business of the value-payable post continued to show steady progress. The number of articles sent was 2,347,569, and the amount declared for recovery by the Post Office from the addressees was £1,879,945, the commission on which was £33,547. There was an increase of 7·66 per cent. in the number of articles, of 9·88 per cent. in the value specified for recovery, and 10·20 per cent. in the commission realised. There was no change in the conditions under which Calcutta is responsible, year by year, for nearly two-fifths of the entire business. Out of a total of 832,291 articles sent by the value-payable post in the whole of the Bengal circle, 758,448 were posted at the Calcutta General Post Office and its town sub-offices; and, of the sum of nearly 92 lakhs recovered from the addressees of value-payable articles in that circle, more than 86½ lakhs were payable to the tradesmen of Calcutta.

The value-payable system has not been introduced between India and any country other than Ceylon. During the year under review 24,840 value-payable articles, of the aggregate value of £14,715, were despatched from India to Ceylon, as compared with 23,697 articles of the aggregate value of £13,800 in the preceding year.

The average value of each article, taking all classes of articles together, was Rs. 12. 0. 2, as compared with Rs. 11. 12. 4 in 1897–98.

The number and value of inland money orders issued in India, including telegraphic money orders but excluding transactions with Native States, increased respectively from 11,664,350 and £16,155,807 in 1897–98 to 11,740,565 and £16,363,363 in 1898–99; and the commission realised, from £203,813 to £205,871. The average value of an inland money order was Rs. 20. 14., against Rs. 20. 12. 4. in the previous year.

In the North Western Provinces and Oudh the number of revenue money orders again showed a considerable improvement, the number and amount being respectively 206,444 and £307,532, against 168,118 and £249,781.

In the Central Provinces, where there had been a falling off during the previous year owing to the prevalence of famine, the number of orders rose from 9,976 to 18,338, and the amount from £29,889 to £45,969. In the Punjab the number and value of these orders increased from 11,030 and £47,014 to 14,065 and £63,441, respectively. In the Lower Provinces of Bengal, including Eastern Bengal and Bihar, there was an increase in the number of the transactions, but a slight falling off in their aggregate value.

The remittance of miscellaneous Government dues by official money orders increased in the Lower Provinces of Bengal, in the North-Western Provinces and Oudh, and in the Punjab.

The total number of rent money orders issued rose from 49,819 in 1897–98 to 51,774 during 1898-99, and the amount of rent remitted, from £48,993 to £50,786. Post Office.

In the money-order transactions with Native States the number and value of the issues in those States were respectively 82,546 and £171,020, against 76,043 and £151,168 in the previous year; and the number and value of payments in the States were 49,166 and £99,343, as compared with 47,709 and £90,679 in 1897-98. The excess of the issues by the States over the payments is mainly due to the issues of the Gwalior State.

The number of telegraphic money orders issued in 1898–99 was 159,826, for £1,227,252, as compared with 156,075 orders for £1,256,865 in the preceding year. The decrease in the aggregate value is to be accounted for by the fact that in the preceding year the remittances by telegraphic money-orders were of an abnormal character, owing to the system having been largely used by grain dealers for the purchase of stocks of grain for the famine-stricken districts of the Deccan. The average value of a telegraphic money order was Rs. 115. 2., against Rs. 120. 12. 8. in 1897–98. The postal commission amounted to £12,981, in addition to £10,655 charged for the telegrams and credited to the Telegraph Department.

The system of identification by thumb impressions was introduced, as an experimental measure, for the payment of money orders to illiterate payees in a part of the North Arcot district of the Madras Presidency. Successful results were obtained, and steps were taken to extend the system to the whole of the Madras postal circle.

The foreign money orders for and from the United Kingdom, most of the British colonies and possessions, foreign European countries and most of their colonies and possessions, and Egypt, are issued in sterling, payments being made by the remitters and to the payees in India at the rates of exchange fixed by the Post Office from time to time for this purpose. The number of such orders issued by India rose from 63,350 in 1897-98 to 68,430 in 1898–99, and the value from £224,346 to £233,331, while the orders paid in India decreased in number from 39,743 to 39,248, and in amount from £221,024 to £220,964 In 1897–98, of the total sterling money-order transactions, viz., £445,369, no less an amount than £404,219 was with the United Kingdom and British colonies, and in 1898–99 the proportion was £391,851, out of £454,295.

The average value of a sterling money order issued by India was £3 8*s.* 2*d.*, as compared with £3 10*s.* 10*d.* in 1897–98, and that of such a money order paid in India was £5 12*s.* 7*d.*, as compared with £5 11*s.* 3*d.* in the preceding year.

The average of the rates of exchange for sterling money orders in force in 1898–99 was 1*s.* 3¼*d.* per rupee, as compared with 1*s.* 3¼*d.* in the previous year.

The money-order transactions between India and China, Japan, Ceylon, and some British and foreign colonies in Africa and the East, are advised in Indian currency. The amount of such orders issued by India rose from £49,419 in 1897–98 to £51,320 in 1898–99, and the orders paid by India, from £310,656 to £369,359.

The average value of a foreign rupee money order issued by India in 1898–99 was Rs. 37. 10. 9., as compared with Rs. 37. 12. 2. in 1897–98, and that of an order paid in India was Rs. 43. 7. 5., as compared with Rs. 42. 14. 3. in the preceding year.

Including inland and foreign money orders, both ordinary and telegraphic, and converting the foreign sterling orders into Indian currency at the rates of exchange in force when the transactions took place, the total of the money orders issued by the Indian Post Office in 1898–99 amounted to £16,748,907, against £16,529,697 in 1897–98, and the total of payments to £17,138,260, against £16,845,877 in the preceding year.

At the close of the year there were 6,310 offices performing savings bank business, against 6,290 in the preceding year, thus showing an increase of 20 offices during the year. The number of accounts in the Post Office savings banks rose from 730,387 in 1897–98 to 755,871 in 1898–99; the deposits, exclusive of transfers from one post office to another, from £2,145,972 to £2,206,885; the withdrawals fell from £3,331,705 to £3,122,672; and the interest from £186,913 to £183,003. The balance at the credit

POST OFFICE.

of depositors at the close of 1898–99 stood at £6,285,336, against £6,191,532 at the close of 1897–98. The average balance at the credit of each depositor was Rs. 124. 7. 3., as compared with Rs. 127. 15. in the previous year. Of the total number of accounts, 90·84 per cent. were held by natives, as compared with a percentage of 91·14 for the preceding year. Of the 755,871 accounts, 310,696 were held by persons of no occupation, or whose incomes were derived from others, or from their own property; 257,230 by persons of the professional class, 126,183 by persons of the domestic class, 29,082 by persons of the commercial class, 22,663 by persons of the industrial class, and only 10,017 by persons of the agricultural class. The last-mentioned class showed, however, the highest percentage of increase, viz., 9·88.

During 1898–99 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was £27,887, against £49,507 in the preceding year; and the balance of securities in the hands of the Comptroller-General at the close of the year was £56,247, compared with £48,747 on the 31st March 1898. Of this balance, £51,773 represented the nominal value of securities of the 3½ per cent. loan, the remainder being in 3 per cent. loans.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout India, and in the aggregate the sales show a decrease of nearly 199 lbs. This decrease was due chiefly to a large falling off in the demand for the drug in the Madras circle, owing partly to the general panic caused by plague measures, and partly to the price of the fine grain packets having been raised in the preceding year from two to three pies each, under the orders of the Local Government. There was also a large decrease in the sales in Bengal, against which may be set off a considerable increase in Bombay.

The total number of Native army pensioners whose pensions were paid through the Post Office during the year was 26,075, and the amount paid to them was £124,768, as compared with 24,713 and £118,810 in 1897–98.

During the year under review 1,470 new policies of the aggregate value of £179,705 were granted by the Postal Insurance Fund. Of these, 1,146 (or 78 per cent.) were endowment polices, amounting to £140,439 in all. This class of policy was introduced with effect from the 1st of February 1898, and has proved, as was anticipated, the most popular form of insurance. Fourteen new contracts for monthly allowances were issued, as compared with 11 in the preceding year, and there were 32 contracts in existence at the close of the year, as compared with 19 at the close of 1897–98. Thirty-three claims, amounting in all to £2,237, were paid on the death of insured persons. Since the fund was started, on the 1st of February 1884, 4,436 lives have been insured; and, at the close of 1898–99, there were 3,834 active policies in existence (1,973 held by Post Office servants and 1,861 by servants of other Departments), and the aggregate sum insured was £402,637. No advantage has yet been taken by women of the extension to them of the benefits of the scheme.

During the year under review there were 30 cases in which the mails were plundered by highway robbers, of which 26 were in British territories, and four in Native States. The figures for the preceding year were 27 and 10 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law were 324, of which 163 were departmentally punished, while legal convictions were obtained in the remaining 161 cases.

The number of complaints made by the public was 20,075, against 19,055 in the previous year. In only 36·23 per cent. of the whole number were the complaints ascertained to be well founded; 40·47 per cent. were entirely groundless; and in the remaining cases, either the investigation of the complaints had not been completed at the end of the year or no definite conclusion had been arrived at.

The principal postal event of the year was the introduction, on Christmas Day 1898, of the Imperial Penny Postage scheme, in accordance with which

letters are now exchanged between the United Kingdom and the great majority of British colonies and possessions, including India, at a uniform postage rate of one penny the half-ounce. The scale of postage for inland letters was also revised and made cheaper. POST OFFICE.

The scheme for the continuous delivery of letters and other postal articles, which had been introduced experimentally in certain parts of Calcutta in the preceding year, was adopted as a permanent arrangement, and extended throughout Calcutta. The scheme was also introduced in selected parts of Bombay towards the close of the year, and although special difficulties had to be contended with owing to the prevalence of the plague, the measure was working satisfactorily when the year ended. The foreign parcel post was extended to Russia in Europe, Brazil, Guatemala, Nicaragua, Bolivia, Samoa, the French Soudan, and some other foreign colonies and possessions. A general revision was carried out of the rates and conditions applicable to parcels for countries served through the United Kingdom, France, and Germany.

The shortest time occupied in transit by the mail from London to Bombay was 12 days 8 hours and 31 minutes, while the average time for the year was 14 days 3 hours and 40 minutes. The quickest transit from Bombay to London was 12 days 20 hours and 22 minutes, while the average time for the year was 14 days 6 hours and 34 minutes.

TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran, for which, as usual, a separate account is given. The system now consists of 51,769 miles of line, 160,650 miles of wire, and 275 miles of cable. TELEGRAPHS.

During the year £151,931 were added to the capital expenditure, of which the greater portion was for new lines, the net additions to the system during the year comprising 1,463 miles of line and 5,826 miles of wire. The total capital outlay at the close of the year stood at £4,347,693.

The number of telegraph offices open to the public at the end of the year, including railway and canal offices, was 4,699, of which 3,488 were maintained by the Department. The net addition to the number of offices during the year was 277.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

—	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices Opened.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	TOTAL.
	£						
Up to beginning of 1894-95 -	3,773,399	42,707	134,255	274	1,224	1,511	2,735
During 1894-95 - - -	52,220	1,941	4,001	—3	138	10	148
„ 1895-96 - - -	92,285	1,727	4,670	—8	99	12	111
„ 1896-97 - - -	115,387	2,209	5,210	6	102	73	175
„ 1897-98 - - -	162,469	1,722	6,688	—5	71	62	133
„ 1898-99 - - -	151,931	1,463	5,826	11	85	101	186
To end of 1898-99 - -	4,347,693	51,769	160,650	275	1,719	1,769	3,488

TELEGRAPHS.

A general view of the operations of the Department in 1898-99, in comparison with the results of the four previous years' working, will be gained from the following statement:—

YEAR.	Number of Messages during Year.	Gross Receipts, including State but excluding *pro formâ* Revenue.	Charges.	Net Receipts.	Percentage of Net to Gross Receipts.	Return on Capital.
		£	£	£		
1894-95 - -	4,391,226	528,340	379,548	148,792	28·2	3·89
1895-96 - -	4,736,734	590,715	385,582	205,133	34·7	5·24
1896-97 - -	5,077,584	589,366	414,338	175,028	29·7	4·34
1897-98 - -	5,713,227	719,530	417,771	301,759	41·94	7·19
1898-99 - -	5,448,600	591,566	427,549	164,017	27·73	3·77

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1898-99 the receipts of the Department were sufficient to cover both the working expenses and the amount expended on capital account, and there was therefore no net charge on Government revenues.

The total number of telegrams sent in 1898-99 amounted to 5,448,600, as compared with 5,713,227 in 1897-98, showing a decrease of 264,627, or 4·63 per cent. The corresponding decrease in value was £133,598 or 22·09 per cent. The falling off was mainly in inland State messages, but the extension of this class of traffic in 1897-98 was wholly abnormal on account of the military operations on the north-west frontier and the earthquake of June 1897. Compared with the figures of 1897-98 the inland State traffic of the year under review shows an increase of 9·9 per cent. in number and 21·11 per cent. in value.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively:—

Class of Telegrams.	1897-98.		1898-99.	
	No.	Value.	No.	Value.
		£		£
Inland State - -	860,382	193,878	659,304	90,712
Foreign State - -	9,896	5,687	9,726	3,871
Total State -	870,278	199,565	669,030	94,583
Inland Private -	4,107,270	263,573	4,036,510	244,915
Foreign Private -	735,679	141,444	743,060	131,485
Total Private -	4,842,949	405,017	4,779,570	376,400
TOTAL STATE AND PRIVATE - -	5,713,227	604,582	5,448,600	470,983

The following statement shows the development of the revenue from the inland private traffic for the 10 years ending 1897–98 :— TELEGRAPHS.

	£
1888–89	148,767
1889–90	151,887
1890–91	163,552
1891–92	179,695
1892–93	192,571
1893–94	203,486
1894–95	214,398
1895–96	231,687
1896–97	249,228
1897–98	263,573

In 1898–99, however, the receipts from the inland private traffic amounted to £244,915 or a decrease of 1·72 per cent. in number and 7·07 per cent. in value, compared with the figures of the previous year, whereas if the comparison is made with the figures of 1896–97, a normal year, there is an increase in number of 6·59 per cent., but a decrease in value of 1·73 per cent., resulting from the greater general use of the deferred class of telegram since the arrangement made in April 1897 for delivering deferred messages by hand came into force. There is every indication of a progressive increase in the number of these messages, and it is probable that the temporary contraction of revenue, due to a measure of which the practical effect has been to give to the public a cheaper class of message, will disappear during the current year.

The total foreign traffic, as measured by the number of chargeable words transmitted (foreign State messages being included), shows an increase of 648,299, or 8·3 per cent. over the figures of 1896–97, and of 145,623, or 1·76 per cent., over those of 1897–98; but with a rising exchange the receipts, which are based on tariffs calculated in gold, do not, as shown in rupees, necessarily correspond with the increase of work done. The receipts show a decrease of £9,419 or 6·50 per cent., when compared with those of 1896–97, and £11,774 or 8·00 per cent., when compared with the receipts of 1897–98.

Foreign private telegrams, including transit messages, show an increase of 1·00 per cent. in number but a decrease of 7·04 per cent. in value.

The private traffic (including press) between India and the West shows decrease in volume of 69,512 words, or 3·24 per cent., and £4,887, or 8·66 per cent. in value (Indian share only), as compared with 1897–98, when there were exceptional circumstances, which induced a large amount of private (especially press) telegraphic correspondence; but when compared with that of the normal year 1896–97, there is an increase of 135,659 words, or 6·99 per cent., with a decrease in value of £3,643 or 6·60 per cent. only, and this decrease in the receipts is mainly due to a rising exchange, as explained above.

The local traffic between India and Ceylon shows a decrease of 54,715, or 4·02 per cent., in the number of words, and of £549 or 4·99 per cent., in the receipts. Between India and the East, including Australia, the traffic shows an increase of 10,299, or 2·54 per cent., in the number of words, but a decrease of £774 or 6·57 per cent., in the receipts. In transit messages of all kinds the number of words transmitted increased by 312,770, or 7·59 per cent., but the receipts decreased by £1,340 or 2·129 per cent.

Inland press-telegram traffic, as compared with that of the previous year, shows an increase of 2,434 in number and £292 in value, or 6·77 and 3·15 per cent. respectively. This development is remarkable, considering the stirring events which gave such an abnormal stimulus to telegraphic traffic in 1897–98.

The foreign press traffic, however, shows a decrease of 1,025 in number and of £782 in value (Indian share only), or 19·42 and 35·51 per cent. respectively, as compared with the previous year, which, as mentioned above, was an exceptional one; but a comparison with the four preceding normal years shows a satisfactory progressive increase.

TELEGRAPHS.

The telephone companies at Bombay, Calcutta, Karachi, Madras, Moulmein, Rangoon, and Ahmedabad continue to extend their business. The number of subscribers was augmented by 117 and the number of exchange connections by 92 in 1898, while the number of private lines increased from 229 to 244. There was a small increase in the number of exchanges and exchange connections under the control of the Telegraph Department.

Communication with Europe *viâ* Suez was maintained uninterruptedly during the year by the Eastern Telegraph Company. The Teheran route was interrupted for 151 hours in all, as compared with 232 hours in the previous year, while the total duration of the interruptions on the Turkish route between Fâo and Pera in Asia Minor was 453, against 1,044 hours in 1897–98. The cable between Bushire and Fâo was cut for repairs on the 12th and 13th October, and closed to traffic for 9 and 12 hours respectively. The percentages of the traffic between India and the West carried by these three lines were :—

	Per Cent.
Red Sea *viâ* Suez - - - - - -	47·65
Indo-European *viâ* Teheran - - - -	50·83
Indo-European *viâ* Turkey - - - - -	1·52
	100·00

The bulk of the transit traffic was, as usual, carried *viâ* Suez.

As regards communication with the East, traffic with the Straits Settlements was not interrupted during the year. The Moulmein-Bangkok line *viâ* Kanburi continues to improve, but the Saigon-Bangkok route was interrupted for periods aggregating 83 days, as compared with 46 days in the previous year. A great improvement is shown in the working of the land route to China *viâ* Bhamo, though it is still far from satisfactory. The interruptions occur almost entirely in the province of Yunnan, and are said to be due more to the neglect of the Chinese telegraph clerks than to the breakdown of the lines.

Amongst the "telegraph events of interest" given in the report, it is stated that a new cable was laid between Porthcurno and Alexandria, the first section between Porthcurno and Gibraltar being opened in August 1898, and the last two sections between Gibraltar and Malta, and Malta and Alexandria, in January 1899.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian Government system at Karachi is known as the Indo-European Government Telegraph Department, and consists of two parts, one, designated the Persian Gulf section, extending from Karachi to Bushire, with a branch to Fâo, where a connection is made with the Ottoman Government line; and the other, called the Persian section, extending from Bushire to Teheran. It comprises 1,721 knots of cable, 1,377 miles of line, and 3,453 miles of wire, exclusive of the Persian Government line from Teheran to Meshed, 568 miles, which is maintained by the Department.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, was re-transferred to London, with effect from 1st April 1893. It has been found convenient to maintain separate accounts for this Department, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked and the influences affecting the traffic are completely different from those prevailing on the Indian telegraph system generally.

The capital account of the Department, which stood at £769,054 at the beginning of the year under review, amounted at its close to £770,264, or an increase of £1,210.

The financial results of working the Department, as compared with the four preceding years, were as follows :— INDO-EUROPEAN TELEGRAPH DEPARTMENT.

Year.	Total Capital Outlay.	Gross Receipts.*	Expenditure.	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	£	£	£	£		
1894-95 - - - -	762,859	104,695	55,126	49,569	6·50	52·6
1895-96 - - - -	765,947	111,339	54,497	56,842	7·42	48·9
1896-97 - - - -	769,985	98,967	51,432	47,535	6·17	51·9
1897-98 - - - -	769,054	102,677	52,132	50,545	6·57	50·77
1898-99 - - - -	770,264	97,722	51,235	46,487	6·03	52·43

* This represents the revenue of the Departments after adjustments made in accordance with the provisions of the joint purse arrangement.

The capital account was increased by £1,210.

The total earnings of the Department show a falling off of £4,955 as compared with the previous year. This is due to (I.) a decrease of £2,350 in the Indian traffic; (II.) improvement in the value of the rupee, which resulted in fewer rupees being collected as the franc equivalent; and (III.) a decrease of £809 in the value of Australian traffic. On the other hand, the value of the Far East traffic (excluding Australia) shows an increase of £2,678.

The expenditure shows a decrease of £897 which is mainly due to fewer repairs being necessary on the Persian Gulf land lines.

The net result is a profit of £46,487 or 6·03 per cent., on the capital, against 6·57 realised last year.

The proportion of Indian traffic carried by the Indo-European route is about 18 per cent. higher than that on which the joint purse was based, but, on the other hand, the proportion of trans-Indian traffic carried by the Indo-European route is about 8 per cent. less than it should be.

Australasian traffic again shows a large falling off, the total value only being £332,441 against £361,590 last year.

The general working of the Department has been very satisfactory, and there was not any interruption of the land lines or cables which caused an interruption of traffic.

The mechanical and electrical condition of the cables is, considering their age, satisfactory.

CHAPTER XII.

EDUCATION, LITERATURE, AND THE PRESS.

EDUCATION.

EDUCATIONAL institutions in India are of two classes :—

EDUCATION.

(1.) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2.) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(2.) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools ; if English is an optional subject only, they are reckoned as Vernacular.

(3.) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the further examinations required for a degree.

Bengal.

In Bengal the number of pupils in public institutions rose from 1,504,892 in 1897-98 to 1,546,243 in 1898-99, and the number of pupils in private institutions from 119,923 to 122,542 ; thus the total increase in the number of pupils under instruction was 44,660. The number of public institutions rose from 53,100 to 54,023, while that of private institutions fell from 11,413 to 11,078. The total number of scholars (1,668,785) represents 15·2 per cent. of the total population of school-going age (as against 14·8 per cent. in 1897–98), the boys (1,564,176) representing 28·6 per cent. (as against 27·8 per cent.) of the male, and the girls (104,609) 1·9 per cent. (the same proportion as in the previous year) of the female population of school-going age.

The total expenditure on public instruction amounted to £740,860, showing an increase of £11,360. This amount was contributed (roughly speaking) as follows :—From provincial revenues, 22·7 per cent. ; district funds, 10·2 per cent. ; municipal funds, ·9 per cent. ; fees, 44·9 per cent. ; all other sources, 21·3 per cent. The expenditure was distributed as follows :—On University education, 11·4 per cent. ; secondary schools, 33·6 per cent. ; primary schools, 29·1 per cent. ; special education, 4·7 per cent. ; building and furniture, 5 per cent. ; direction, inspection, and miscellaneous, 15·7 per cent.

The result of a year of material prosperity almost compensated, as regards the mere numbers of pupils, for the losses caused by the conditions of 1897–98, but the number of schools cannot for some time return to the figures for 1895-96. In the year under review all classes of public institutions, except middle schools and female schools, have gained both in number and strength. As regards the middle schools, it appears that vernacular education is losing ground, and hat English schools, which lead more directly to various professions and employments, are gaining at the expense of vernacular institutions. There

has for three years been a steady decline in the number of female pupils in Bengal. Of the total number of pupils, male and female, under instruction in 1898–99, 69·6 per cent. were Hindus and 27·1 per cent. Muhammadans. These figures show that the number of Muhammadan pupils did not increase proportionately, although it exceeded the figures for 1897–98 by some 7,000. EDUCATION.

There were 39 colleges at work during the year, of which 22 were unaided by Government. Out of 1,636 candidates for the B.A. degree, 416 passed. Government colleges passed 33·3 per cent. of their candidates, aided colleges 27·4 per cent., and unaided 20·8 per cent. The only organised school for sons of native chiefs and noblemen (the Nawab's Madrasah at Murshidabad) contained 56 pupils at the close of the year. Missionary institutions appear to have made some progress in the education of aboriginal tribes, especially in Chota Nagpur. There has been an appreciable gain in the number of advanced Arabic and Persian schools, and, upon the whole, Sanskrit schools maintain their position.

The total expenditure on education in the North-Western Provinces and Qudh amounted to £247,864, showing an increase of £2,929 on the expenditure of 1897–98. This sum was contributed in the following proportions: from provincial revenues, 19·15 per cent.; from local funds, 37·97 per cent.; municipal funds, 3·02 per cent.; fees, 22·38 per cent.; all other sources, 17·48 per cent. The outlay was distributed as follows:—University education, 16·8 per cent.; secondary schools, 37·3 per cent.; primary schools, 21·6 per cent.; special institutions, 2·9 per cent.; buildings and furniture, 10·9 per cent.; direction, inspection, and scholarships, 10·5 per cent. North-Western Provinces and Oudh.

The number of public institutions in the provinces (6,944) showed an increase of 186, while the number of private institutions rose by 48 to 6,202.

The total number of pupils under instruction in the provinces was 378,084, showing an increase of 21,653 on the numbers of 1897–98 and representing 5·38 per cent. (as against 5·07 per cent. in 1897–98) of the population of school-going age. Of these pupils, 299,068 were in public, and 79,182 in private institutions. The 359,857 male scholars represent 9·87 per cent. of the boys of a school-going age, and the 18,393 female scholars form 0·54 per cent. of the girls. The proportions in the previous year were 9·32 per cent. of males, and 0·49 per cent. of females. As regards race and creed statistics, 75·43 per cent. of the pupils (as against 74·51 per cent.) were Hindus, and 21·52 per cent. (as against 22 per cent.) were Muhammadans. It is noticeable that among the Muhammadans the scholars represent 15·67 per cent. of boys of school-going age, and 0·91 per cent. of girls, while the corresponding percentages among Hindus were 8·70 and 0·24 per cent. respectively.

The increase in the total number of scholars occurred mainly amongst the boys at primary schools, but the number of girls at primary schools also increased appreciably. There was an increase of nearly £4,665 in the amount received from fees.

Collegiate institutions have been to some extent affected by the recent provision of collegiate education in certain Native States which formerly sent their students to the provinces. The death of Mr. Theodore Beck, Principal of the Muhammadan Anglo-Oriental College at Aligarh (following closely upon the death of Sir Saiyid Ahmed), inflicted an irreparable loss upon the college.

The growth of private enterprise in education has been a marked feature of recent years. Private institutions as a rule charge lower fees than public schools, and so attract pupils, but it remains to be seen whether they can compete successfully in examinations.

The year has on the whole shown progress, although there are no very marked results to report.

The total expenditure on education for the year in the Punjab was £214,710, showing an increase of £4,275 on the expenditure of 1897–98. This sum was contributed in the following proportions:—Imperial revenues, 3·9 per cent.; provincial revenues, 24·2; local funds, 19·5; municipal funds, 11·4; fees, 26·1; other sources, 14·8. The proportional expenditure was distributed as follows:—On university education, 7·7 per cent.; secondary schools, 36·82; primary schools, 17·42; special education, 5·02; direction, inspection, and scholarships, 14·78; building, furniture, &c., 18.18 per cent. Punjab.

EDUCATION.

The number of public institutions (3,073) shows a decrease of 71, and the number of pupils attending them (181,446) a decrease of 3,544. The decrease occurred mainly in primary schools of the indigenous class for boys. In the number of private schools (5,075), there was an increase of 24, which must be set against a decrease of 312 in the preceding year, and the number of their pupils increased by 2,090 to 79,651. The total number of scholars under instruction was 261,097 (as against 262,551), of whom 238,667 were males and 22,430 females. The boys and girls represent 14·14 per cent. and 1·56 per cent. respectively of the male and female population of school-going age.

The number of Muhammadans under instruction (123,074) showed an increase of 655 over the number in the previous year, but there had then been a decrease of 6,118. The highest place in the last B.A. examination was taken by a Muhammedan. The percentages of children of a school-going age actually under instruction, classified by creed, stand as follows:—Muhammedans, 12·10 per cent. of boys, and 1·26 of girls; Hindus, 16·32 and 1·38 per cent.; Sikhs, 17·18 and 2·22 per cent. respectively. During the year under review there were 1,792 schools, with 87,511 pupils under the management of District Boards, and 316 schools with 34,632 scholars under municipal committees.

The 11 colleges of the province were attended by 1,458 students, the number having increased by 94. The B.A. degree was obtained by 108 out of 328 candidates. As regards Secondary Education, the Anglo-Vernacular schools show a slight advance. The proportion of agriculturists among pupils in secondary schools was 23 per cent. The decrease in the total number of primary schools and pupils has already been mentioned, but the steady decline in the number and strength of Zamindári schools in particular is noteworthy. The attendance in native girls' schools decreased, owing to the year being an auspicious one for marriages.

A continued improvement in conduct and discipline is reported in schools throughout the province, and physical training shows satisfactory progress.

Burma.

The total expenditure on education in Burma has risen from £89,586 to £96,962, the chief enhancement being under the heads of secondary schools and building grants. The expenditure has been met in the following proportions:—Provincial funds, 47·12 per cent.; local funds, 10·66 per cent.; municipal funds, 8·83 per cent.; fees, 20·69 per cent.; other sources, 12·7 per cent. The outlay was distributed as follows:—Arts colleges, 4·92 per cent.; secondary schools, 44·69 per cent.; primary schools, 18·72 per cent.; special education, 6·39 per cent.; direction, inspection, and scholarships, 14·68 per cent.; buildings, furniture, &c., 10·6 per cent.

The total number of schools has risen from 16,280 to 16,331, and that of scholars from 259,649 to 270,257. The public institutions numbered 4,686, with 143,006 pupils; the private 11,645, with 127,257 pupils. The boys under instruction (241,719) represent 41·46 per cent. of the male population of school-going age, and the girls (28,538), 5·09 per cent. of the female.

The number of students at the Rangoon College increased from 70 to 95. Out of 8 candidates for the B.A. examination, and 36 for the F.A., 7 and 18 respectively were successful. The examination results in secondary schools were, on the whole, disappointing, and female education has apparently shown some retrogression. The text-book committee has continued to do useful work.

There were in this year 26 schools for Europeans, with 1,900 pupils. Some advance was made in Karen education, but the progress of Muhammedan and Tamil schools is unsatisfactory.

Assam.

The total expenditure, direct and indirect, on education in Assam was £44,164, as compared with £44,000 in 1897-98. The direct expenditure fell from £32,302 to £31,510, while the indirect expenditure rose from £11,698 to £12,654. The expenditure was met from the following sources: provincial revenues, 30·95 per cent. of the total; local funds, 30·39 per cent.; municipal funds, 1·12 per cent.; fees, 19·36 per cent.; miscellaneous, 18·18 per

cent. Subscriptions from the public and contributions from the missions fell off. The expenditure was distributed in the following proportions: arts colleges, ·62 per cent.; secondary schools, 29·69 per cent.; primary schools, 36·62 per cent.; special education, 4·42 per cent.; direction, inspection, and scholarships, 19·11 per cent.; building, furniture, &c., 9·54 per cent. EDUCATION.

The total number of institutions was 3,368 (as against 3,389 in the previous year); of these, 3,086 (as against 3,107) were public and 282 (the same number as in the previous year) private. The total number of scholars rose from 96,925 to 99,823 (a total still considerably below that of the year 1896–97), of whom 91,810 (as against 89,156) were males, and 8,013 (as against 7,769) females. These figures represent 21·65 per cent. and 3·03 per cent. respectively of the boys and girls of school-going age. The number of Muhammedan pupils was 20,236 (as against 19,521 in the preceding year), representing 20·3 per cent. of the total number of pupils in the province.

The total number of students from the province reading in arts colleges in Bengal and Assam was 278, of whom 44 passed the F.A. and 18 the B.A. examinations.

The number of schools in British territory in the Central Provinces fell from 2,215 in the previous year to 2,094, and the number of pupils from 125,933 to 125,502. In the Native States the number of schools rose from 277 to 295, and the number of pupils from 14,165 to 15,474. The decrease in British territory represents a fall in the number of vernacular primary schools; 139 of these institutions had to be closed on account of the financial mismanagement of two district councils, which had previously exceeded their powers in devoting to education more money than was by rule available. Central Provinces.

The total expenditure on education amounted to £70,558 (as against £74,422). The sum of £64,968 (as against £63,176) was expended in British territory, derived from the following sources: provincial revenues, 35·1 per cent.; district funds, 22·4 per cent.; municipal funds, 11·9 per cent.; fees, 13·8 per cent.; other sources, 16·8 per cent. The proportional outlay was as follows: University education, 5·76 per cent.; secondary schools, 27·6 per cent.; primary schools, 38·47 per cent.; special education, 3·55 per cent.; direction, inspection, and scholarships, 14·86 per cent.; buildings, furniture, &c., 9·76 per cent.

The percentage of children under instruction to the population of school-going age was 7·5 in British territory and 4·8 in Native States; 7·2 throughout the Province. The male percentage (including Native States) was 13·34, the female, 1·15. In British territory, 40·1 per cent. of male Muhammadans of school-going age, and 2·2 per cent. of female were undergoing instruction. These figures show a decided advance. The statistics of female education (175 schools, with 11,183 pupils) show an increase of 4 schools and 333 pupils.

The progress of the Rajkumar College for sons of Chiefs, situated at Raipur, has been very satisfactory. Considerable attention has been devoted to physical training throughout the Province.

The year under report in Berar shews a partial recovery from the effects of famine. One consequence of the improved condition was a great increase in the number of marriages and a consequent decline in female education. The total number of institutions fell by 17 to 1,272, but the total number of pupils rose by 1,818 to 53,983. The 50,769 boys at school represent 22·59 per cent. of the male population of school-going age, and the 3,214 girls, 1·52 per cent. of the female. Only 7 schools (with 306 scholars) were classified as private. Berar.

The total expenditure on Public Instruction amounted to £28,158 (as against £28,908), of which about 50 per cent. was derived from Provincial Funds. The proportional outlay was as follows:—Secondary schools, 18·3 per cent.; primary schools, 59·1 per cent.; special education, 2·1 per cent.; direction, inspection, and scholarships, 13·8 per cent.; building, furniture, &c., 6·3 per cent.

There was a considerable decline as regards "indigenous schools," which was apparently due to the high standard laid down for grants-in-aid. About 16·2 per cent. of the pupils in the Districts were Muhammadans. The education of low-caste Hindus shows some progress.

EDUCATION.

Bombay.

The total expenditure on education in Bombay fell from £491,778 in 1897–98 to £488,016, a decrease in the expenditure from Provincial Funds having been rendered necessary by the course of the plague. The total sum was contributed in the following proportions:—Provincial funds, 27·7 per cent.; local funds, 13·6 per cent.; municipal funds, 5·5 per cent.; fees, 20·6 per cent.; revenues of native states, 17 per cent.; all other sources, 15·6 per cent. The expenditure was divided as follows:—On university education, 6·7 per cent.; secondary schools, 26 per cent.; primary schools, 46·2 per cent.; special education, 6·9 per cent.; direction, inspection, and scholarships, 8·3 per cent.; buildings, furniture and miscellaneous, 5·9 per cent.

The total number of institutions was 12,639, the public institutions having fallen from 9,917 to 9,768, and the private risen from 2,762 to 2,871. The total number of pupils was 629,718, of whom 558,870 (as against 580,855 in the previous year) were in public institutions. The actual numbers of male and female pupils were 550,259 and 79,459; the respective percentages to population of school-going age were 26·36 (as against 27·12 in the previous year) and 4·06 (as against 4·21 per cent.)

The primary schools suffered from the results of the plague, especially in the Southern Division, and several aided indigenous schools in Sind were closed for inefficiency.

The success of the Elphinstone College was conspicuous. There is little to remark as regards female education, but attention may be called to the observation made by the inspector of the Central Division, that "in all but the "largest cities, girls' schools are chiefly valued as *crèches*, in which the little "ones are out of harm's way." Progress in Muhammadan education is very slow, and the special Urdu schools do not appear to be as efficient as Marathi schools.

Madras.

The total educational expenditure in the Madras Presidency rosefrom £459,842 to £475,132, of which sum £379,530 (as against £373,166) came under the head of direct expenditure. The increase thus fell mainly under the head of indirect expenditure, and it was contributed principally from private funds and fees. The total expenditure was contributed as follows: from provincial revenues, about 23 per cent.; local funds, about 12 per cent.; municipal funds, about 4 per cent.; fees, about 31 per cent.; other sources, about 30 per cent. The outlay was distributed in the following proportions: University education, 12·28 per cent.; secondary schools, 30·87 per cent.; primary schools, 29·72 per cent.; special education, 7·01 per cent.; direction, inspection, and scholarships, 9·43 per cent.; buildings, furniture, and miscellaneous, 9·69 per cent.

The total number of pupils under instruction rose from 828,560 to 840,047. Of these 715,763 were males, representing 27·08 per cent. of the male population of school-going age, and 124,284, representing a corresponding percentage of 4·60, were females. Of the total number of pupils, 727,671 were receiving instruction in public institutions, and 112,376 in private schools. The total number of institutions was 27,263 (of which 21,766 were public) as against 27,238 (of which 21,850 were public) in the preceding year.

There was a large fall in the number of candidates for the degree of B.A., and also in the number of students on the rolls of the Law College. There were 48,082 boys in the secondary stage of instruction, and 537,238 in the primary. A steady improvement in the condition of female education is reported, the number of girls at school having risen by 2·9 per cent. Eight female candidates passed the B.A. examination.

The total number of Muhammadan students rose from 100,295 to 101,894. Progress has been made in the education of Panchamas (low-caste Hindus), but there is a slight fall in the number (3,116) of children belonging to aboriginal tribes under instruction.

A general improvement in school discipline has been noted.

Coorg.

Since the year 1895-96 there has been a steady decrease in the number of pupils at school in Coorg, which cannot be attributed solely to the agricultural depression. A wide-spread panic on the vaccination question seems to have caused parents to keep their children at home.

The educational control of the province was, in the year under review, placed under the Director of Public Instruction, Madras. EDUCATION.

The number of schools fell from 120 (of which 79 were public) to 91 (of which 76 were public), and the total number of scholars from 4,328 to 4,105 (of whom 3,893, as against 3,996, were in public institutions). The 3,363 male scholars and 742 female represent respectively 23·37 and 6·41 per cent. of the boys and girls of school-going age.

The total expenditure on education fell from £2,604 to £2,474.

LITERATURE AND THE PRESS. LITERATURE.

—	English.	Bi-lingual: English and another Language.	Other European Languages.	Sanskrit.	Arabic.	Persian.	Urdu.	Hindi.	Bengali.	Punjabi.	Marathi.	Gujarathi.	Tamil.	Telugu.	Burmese.	Bi-lingual (Oriental): A Classical and a Vernacular Language.
Bengal	538	89	1	62	3	3	38	75	984	—	—	—	—	—	—	160, chiefly Sanskrit and Bengali.
N.W. Provinces and Oudh.	92	68	—	76	20	66	454	296	3	7	2	1	—	—	—	232, chiefly (*a*) Sanskrit and Hindi; (*b*) Arabic and Urdu.
Punjab	104	32	—	15	47	38	605	71	—	274	—	—	—	—	—	95, chiefly Persian or Arabic and Urdu.
Central Provinces	6	4	—	—	—	—	—	19	—	—	6	—	—	—	—	2, Sanskrit and Hindi.
Berar	1	—	—	—	—	—	—	—	—	—	16	—	—	—	—	—
Mysore	4	2	—	13	—	—	—	—	—	—	—	1	2	—	—	33, chiefly Sanskrit and Canarese.
Bombay	52	42	1	42	3	13	13	61	—	—	105	266	—	—	—	77, chiefly Sanskrit and Gujarathi or Marathi.
Madras	257	95	3	51	1	1	1	—	—	—	—	—	241	264	—	78, chiefly Sanskrit and Tamil or Telugu.
Burma	8	7	—	—	—	—	—	—	—	—	—	—	—	1	43	32, Pali and Burmese.

This table gives concisely the number of publications throughout India in European, Eastern classical, and the principal Indian vernacular languages. The number of bi-lingual and polyglot publications makes classification difficult, but it may be noted that books have been published in the following languages, as well as those given above:—Zend and Pahlavi (in Bombay), Prakrit (in Punjab and Central Provinces), Pali (in Burma), Chinese (in Burma), Tibetan (in Bengal), Uriya (in Bengal and Madras), Assamese (in Assam and Bengal), Kashmiri (in Bengal and Punjab), Sindhi (in Bombay and Punjab), Kanarese (in Madras, Bombay, and Mysore), Konkani (in Madras and Bombay), Malayalam (Madras), Pashto (Punjab), Nepalese (Bengal and N.W. Provinces), Garo, Khasi, Manipuri, Tipperah, Mundari, Musalmani-Bengali, and Santali (in Bengal), Kaithi (in N.W. Provinces), Marwari (Bombay and Punjab), Tulu (Madras), Kachin, Sgau-Karen, Talaing, Chin, and Shan (in Burma).

The number of publications received in the Bengal Library was 2,174 (as against 2,182) in 1897, 771 of these being periodicals. Complaint is again made of the systematic evasion by printers of the registration rules. There is little to notice in the numerous stories and plays published in the Bengali language. A critical essay on the Hindu Law of Inheritance as at present administered ("Hindu Vijnan Sutra," by Babu B. N. Ray) deserves attention. Most of the works published in English are educational. Twelve philosophical works in Sanskrit are recorded. In the Uriya language 161 books were published, of which nearly one-third were poems. The most important bi-lingual publications were Sanskrit-Bengali works on language, philosophy, and religion. Bengal.

Amongst periodicals, the "Bhárati" has passed out of the hands of the two Bengali ladies who edited it, and has become more political in character, but it appears that there has been on the whole a slight increase in the number of Bengali women-writers. A journal specially intended for zenana ladies was

LITERATURE. North-Western Provinces and Oudh.

started during the year. Some improvement in educational text-books has taken place.

A large output of Urdu fiction is reported, and the translation of objectionable English novels into the vernacular is again remarked. The detective novel has made its way into Urdu literature, but religious works and verses are the most numerous classes, the former class including controversial tracts representing Christianity, Hinduism, Muhammadanism, Jainism, the Arya Somaj, Theosophy, and the Radha Swami sect. Most of the works on language, history, and law, are mere cram-books. It is noticeable that native papers never contain reviews of new books, and that there is little encouragement for authors.

Punjab.

The total number of books received rose from 1,074 in 1897 to 1,326 in 1898. Punjábi writing shows steady development, but Urdu is represented by 605 books. As in the North-Western Provinces, religion is the most popular subject, while poetry comes second. A life of the Amir Abdurrahman of Kabul (Tazkira-i-Amir) and a study of Sa'di (Yádgár-i-Sa'di) in Urdu deserve notice, while a versified collection of the lives of Sikh Gurus ("Gurú Partáp Súraj Granth") appears to possess considerable merit. A history of the Kapurthala State, a history of Muhammedan rule in India, and an account of the Graeco-Turkish war of 1897 ("Jang-i-Turkey wa Yunán") form an interesting addition to Urdu literature. The "Himáyat-un-Nisá," an exposition of women's rights by a Muhammedan widow, marks a new development. The chief work in Punjábi appears to be a poem ("Púran Bhagat") by Kali Das.

Bombay.

The total number of publications registered was 1,135, against 1,036 in 1897. A Gujarathi translation of an English version of Fénélon's "Télémaque," a Marathi translation of Colonel Malleson's "Akbar," and a life of Bal Gangadhar Tilak in Marathi verse, may be noticed. An account of the Tilak trial in Marathi, written with the design of letting the public know "how far political agitation can be carried on without infringing the law," has some significance. Only 10 Marathi and 15 Gujarathi books were written by native graduates. The Parsi community appears to take considerable interest in Gujarathi literature.

Madras.

In Madras, the number of publications rose from 951 to 1,657. The "Lady of the Lake" has been translated into Malayalam prose, and there is a large output of original, if undistinguished, fiction in Tamil and Telugu. Religious publications are numerous.

Other provinces.

Assam produced 31 publications, all in the Assamese language. In Mysore the translation of five of Bankim Chandra Chatterji's Bengali novels into Canarese is noteworthy. There is little that calls for comment in publications in the Central Provinces and Berar, and nothing has been published in Coorg.

CHAPTER XIII.

EMIGRATION AND MIGRATION.

I. EMIGRATION.

EMIGRATION.

During the year 1898 the Port of Calcutta was opened for navigation to the Seychelles. The British colonies of Natal, Demerara, Jamaica, Trinidad, and Fiji, and the Dutch colony of Surinam, indented for labourers. The British colonies requisitioned 5,758 labourers (as against 7,024 in 1897), and four colonies were supplied with 5,444 during the year, 623 labourers being sent to Jamaica in February 1899. Mauritius made no indent in 1898. Surinam asked for 600 labourers and received 590. Calcutta.

The number of emigrants registered was 9,334, as against 12,315 in 1897, the decrease being ascribed to the greater prosperity of the agricultural population. Of the labourers recruited, 6 per cent. came from Bengal, 7 per cent. from Bihar, 55 per cent. from the North-Western Provinces, and 32 per cent. from Oudh. Of the 701 recruiters' licenses, 27 were cancelled for various reasons.

Of the 9,487 emigrants recruited, 7,439 reached Calcutta, making up, with the addition of 667 not despatched in the previous year, a total of 8,106 accommodated there.

Out of this total, 6,223 (of whom 5,350 were Hindus, and 873 Muhammedans) were despatched to the colonies, 38 per cent. going to Demerara, 22 per cent. to Natal, 20 per cent. to Trinidad, 9 per cent. to Fiji, and 10 per cent. to Surinam. Eight sailing ships and four steamers (as against seven and nine) were chartered to carry emigrants, the steamers being used for the Natal voyage only. The emigrants included 238 returned labourers, of whom 217 had served in British colonies. Of these re-enlisted emigrants 183 went to Demerara.

The number of the time-expired emigrants who returned during the year was 3,502 (as against 3,750). Five sailing ships and five steamers were employed to convey them. The number of deaths on the return voyages represented 1·82 per cent. The aggregate of the savings brought back amounted to Rs. 451,860, giving an average of Rs. 130 per emigrant, the largest average savings being those of the labourers from Fiji, nearly Rs. 230 per head. The French colony of Guadeloupe (emigration to which has ceased), repatriated 42 emigrants with average savings of Rs. 80 per head.

Agencies were maintained at Madras by the Governments of Natal and Mauritius. The Natal depôt admitted 6,356 persons, of whom 4,083 (as against 3,123 in 1897) actually emigrated, 2,369 of these being men and 969 women. Natal repatriated 320 labourers, with aggregate savings of £3,232. Mauritius did not requisition any coolies, but repatriated 548 emigrants, with aggregate savings of 940*l*. The average savings per head of returned emigrants were Rs. 210 for Natal and Rs. 30 from Mauritius. Madras.

At Negapatam 3,424 indentured emigrants were registered for the Straits Settlements, and 3,319 embarked (as against 3,063 and 2,962 in 1897). There was no emigration to French colonies, but 25 emigrants returned from Réunion, and six from Guadeloupe.

As regards free emigration, 15,339 British subjects embarked for the Straits Settlements (as against 18,719), and 142,300 for Ceylon (as against 166,186).

The number of persons returning to Madras from other provinces of India and from countries outside India was 216,901. Immigrants from the colonies are not distinguished from immigrants from Burma and Assam in the report. An examination of the statistics for the last 10 years leads to the conclusion that 84 per cent. of emigrants from Madras return to the Presidency.

Emigration from the port of Bombay was specially prohibited throughout the year by a notification under the Epidemic Diseases Act, but, by special arrangement, 289 labourers were allowed to leave for the Seychelles. Karachi was closed for the greater part of the year, but 9,479 employés of the Uganda railway, recruited in districts of Sind which were free from plague, were Bombay.

EMIGRATION.

allowed to leave the port. In December 1898 orders were issued that ships containing emigrants to Uganda should carry a doctor, and special attention was paid to the accommodation provided for emigrants.

The number of invalided and time-expired labourers that returned to the Presidency from Mombasa was 1,397.

Free emigration to East Africa continued throughout the year.

MIGRATION.

II. MIGRATION.

Assam.

The improved conditions of the year 1898 throughout the greater part of India led to a great fall in the number of persons migrating to Assam. The decrease, in fact, was one of 48 per cent., the number of labourers that entered Assam being 46,169 in 1898, as against 95,931 in 1897. The number of adult immigrants imported fell from 66,328 to 35,516. The decrease was very marked in the case of labourers from the North Western and Central Provinces, but Chota Nagpur and the Santhal Parganas contributed an increased number of labourers.

The "sardari" system of recruitment continued in favour; 12,080 labourers having been recruited under the Act by garden sardars, against 10,559 Act labourers recruited by contractors, (the latter figure showing a reduction of nearly 60 per cent. on the average of the last three years). Of the total number of 35,516 adults, 16,936 were engaged under contract in the recruiting districts, and 18,580 were brought to Assam outside the Act. Of the latter number, 5,703 entered into contracts at Dhubri, and 1,284 in the labour districts, while 11,593 remained "free immigrants." As regards the distribution of labourers, the Assam Valley received 20,839 "Act" and 3,183 "non-Act" adults, and the Surma Valley 1,800 "Act" and 9,744 "non-Act" adults.

The proportion of medical rejections of coolies at Dhubri was 6·6 per cent. (as against 8·1 per cent.).

The year under review was a healthy one, and the total mortality among immigrants during transit fell considerably. The birth-rate on the tea gardens fell, but the death rate (31·1 per mille) was the lowest on record. The number of gardens classed as unhealthy was 55 (as against 119 in 1897).

The total labour-population of the province at the close of the year was 634,519. The total number of contracts executed under the Act was 51,373, of which 28,737 were executed locally. The number of agreements dissolved by mutual consent was 2,000.

There was a decrease of 12 per cent. in the total number of criminal offences committed by the tea-garden population, and a decrease of 40·3 per cent. in the number of offences (other than desertion) under the Emigration Act. The number of adult deserters fell from 23,670 to 17,967. Convictions were obtained against 6·5 per cent. only of the deserters arrested.

The question of raising the minimum statutory rate of wages was under consideration in connection with the amendment of the Emigration Act (I. of 1882).

Burma.

The number of immigrants increased considerably, as appears from the returns of persons passing through the principal ports. At Rangoon the number of immigrants rose from 106,374 to 132,177; at Akyab from 15,925 to 16,407. No figures were this year available for Kyaukpyu, but at Moulmein the number fell from 644 to 596.

As regards "emigration," which consists chiefly of the return of immigrants, the numbers passing through the ports were as follows: Akyab, 14,972 (against 14,359 in the previous year); Rangoon, 91,033 (against 75,998); Moulmein, 743 (against 847).

Madras.

Only 269 emigrants to Assam were registered, against 1,044 in the preceding year. The number of passengers for Burma was 70,874; the number of persons returning from Burma, 44,087.

CHAPTER XIV.

TRADE AND MANUFACTURES.

(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)

TRADE.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1899, was valued as follows:— TRADE.

BY SEA.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£	£	£	£	£
Private Imports:					
Merchandise - -	46,778,292	46,210,930	47,862,553	46,177,775	45,586,894
Treasure - - -	6,372,671	8,905,991	8,716,902	13,650,857	11,922,638
	53,150,963	55,116,921	56,579,455	59,828,632	57,509,532
Private Exports:					
Foreign Merchandise re-exported - -	3,371,609	3,145,011	2,689,091	2,500,781	2,247,464
Indian Merchandise -	69,171,723	73,030,416	66,587,107	62,524,063	72,900,185
Treasure - - -	5,438,678	2,821,534	3,283,927	4,756,113	4,938,787
	77,982,010	78,996,961	72,560,125	69,780,961	80,086,436
Government Transactions:					
Imports { Stores - -	2,241,037	2,413,572	2,882,363	2,920,248	2,480,791
Imports { Treasure -	14,800	6,000	6,140	36,221	7,771
Exports { Stores - -	65,853	47,732	46,532	63,672	52,168
Exports { Treasure -	45,370	18,340	7,737	9,652	2,160
	2,367,060	2,485,644	2,942,772	3,029,793	2,542,890
TOTAL Trade by Sea -	133,500,033	136,599,526	132,082,352	132,639,386	140,138,858
BY LAND.					
Imports - - -	3,287,692	3,316,191	3,758,351	3,756,401	4,061,962
Exports - - -	2,836,132	2,820,198	3,291,381	3,287,798	3,526,483
GRAND TOTAL of Trade by Land and Sea -	139,623,857	142,735,915	139,132,084	139,683,585	147,727,303
Excess imports of treasure - - -	903,423	6,072,117	5,431,378	8,921,313	6,989,461
Net excess of exports over imports of merchandise, Government transactions, and treasure - - - -	22,686,400	21,526,534	13,146,437	7,069,184	20,142,670
India Council Bills paid in India - - -	19,256,067	22,053,933	16,818,600	10,374,600	18,917,111*

The above figures show that the year 1898-99 was one of considerable prosperity, and that some of the ground lost during the two years of distress had been regained; but they also show how serious the check was, since the total of the private seaborne trade of the year only exceeds that of 1895-96 by 1·4 per cent., a small increase in three years in a country which is still under- Foreign seaborne trade.

* The amount of Council Bills paid in India is stated in pounds, at Rs. 15 to the pound. As in previous years, the amount actually paid during the year in India is given; the Bills drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1898-99 amounted to Rs. 280,764,000, yielding 18,692,377*l.* sterling, at an average rate of 15·978 pence per rupee.

TRADE.

going development in every direction. Causes which contributed to the revival were, besides the good harvests, the cessation of the monetary stringency and the fixity of exchange; the rapid fall in July 1898 of the bank rate, which did not rise again above 7 per cent.; and the fact that the exchange rate remained steady at about 16*d.* per rupee. Particulars of the chief articles of private merchandise are as follows:—

Imports.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£	£	£	£	£
Cotton woven goods -	19,881,000	15,189,000	17,616,000	15,268,000	16,459,000
Metals and hardware -	4,231,000	5,464,000	4,681,000	5,112,000	4,406,000
Oils, chiefly petroleum -	1,481,000	2,091,000	2,293,000	2,765,000	2,368,000
Silk, raw and manufactured	1,543,000	1,958,000	1,495,000	1,213,000	1,439,000
Cotton yarns - - -	1,901,000	1,981,000	2,217,000	2,329,000	1,701,000
Sugar - - - - -	1,817,000	2,071,000	2,101,000	3,189,000	2,678,000
Machinery and mill work	1,628,000	2,158,000	2,340,000	1,907,000	2,039,000
Provisions - - -	1,043,000	1,190,000	1,025,000	1,137,000	1,021,000
Chemicals, medicines, dyes	1,244,000	1,441,000	1,260,000	1,374,000	1,342,000
Woollen goods - -	1,028,000	964,000	1,129,000	765,000	1,016,000
Liquors - - - -	972,000	1,131,000	1,097,000	1,059,000	1,099,000
Apparel - - -	957,000	1,063,000	1,011,000	818,000	920,000
Railway material - -	1,038,000	1,014,000	1,775,000	1,917,000	1,925,000

The imports of merchandise were smaller than in 1897–98, owing chiefly to the partial cessation of the large imports of sugar, metals, and petroleum which marked the previous year. The imports of cotton, woven goods, and yarn together, which are always a fluctuating item, were rather higher.

Exports.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£	£	£	£	£
Raw cotton - -	5,802,000	9,393,000	8,647,000	5,914,000	7,457,000
Rice (husked) - -	2,461,000	8,954,000	7,900,000	7,725,000	10,452,000
Oilseeds - - -	2,801,000	6,478,000	5,341,000	5,729,000	7,898,000
Jute, raw and woven -	3,192,000	9,827,000	10,510,000	10,707,000	8,493,000
Opium - - -	6,043,000	5,639,000	5,349,000	4,065,000	4,751,000
Wheat - - -	1,710,000	2,609,000	557,000	895,000	6,480,000
Cotton yarns - -	3,781,000	4,487,000	4,782,000	4,645,000	4,402,000
Tea - - -	5,037,000	5,110,000	5,417,000	5,373,000	5,363,000
Hides and skins -	4,373,000	5,093,000	4,634,000	5,545,000	4,966,000
Indigo - - -	3,164,000	3,570,000	2,914,000	2,038,000	1,980,000
Coffee - - - -	1,415,000	1,465,000	1,057,000	1,013,000	1,167,000
Cotton woven goods -	907,000	975,000	803,000	710,000	705,000
Wool, raw - -	918,000	902,000	827,000	905,000	835,000

The chief increases were, as was to be expected, in the exports of food grains. The crop of wheat was good, and prices were at an exceptionally high level in Europe, so that the exports rose far above the low figures of recent years; they were not, however, remarkably high in comparison with some of the years of the preceding decade. Much the same may be said of rice, the exports of which were larger, but not much larger, than in the years preceding the famine. The tea exports showed an increase of 4 per cent., though their value fell slightly. Japan again took about 36 per cent. of the raw cotton exported from India. The exports of raw jute, which were abnormally large in 1897–98, declined in the year under report, as the area of the crop was smaller.

India's trade in merchandise with gold-standard countries was, in the year of the closing of the Mints 77 per cent. of her total trade; since then it has fallen to 75 per cent., but stood at 82 per cent. in the year under report, owing to the inclusion of Japan and the countries using the Indian currency system, Ceylon, Aden, and Mauritius, among the gold-standard countries. The proportion of trade directly with European countries was 65 per cent. as in the

previous year, omitting the seven crores trade with Egypt, much of which really goes to Europe. The trade with the United Kingdom was 67 per cent. of the trade with Europe, and 44 per cent. of the total trade, against 47 per cent. in 1896–97. TRADE.

The value of India's trade with some of the chief countries has fluctuated as follows in the last five years :—

	Total Value.				
	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.
	£.	£.	£.	£.	£.
United Kingdom	56,627,000	55,536,000	55,356,000	51,212,000	53,257,000
France	6,361,000	6,488,000	4,859,000	4,351,000	5,905,000
China	10,239,000	10,503,000	10,645,000	9,279,000	9,697,000
Germany	6,303,000	6,942,000	6,570,000	6,415,000	6,655,000
Straits Settlements	5,155,000	5,523,000	4,781,000	4,649,000	5,320,000
Belgium	3,775,000	4,455,000	3,642,000	3,549,000	4,620,000
Italy	2,225,000	2,374,000	2,357,000	2,132,000	2,585,000
Ceylon	2,601,000	2,809,000	2,618,000	3,447,000	3,341,000
Japan	1,317,000	2,158,000	3,095,000	3,139,000	3,855,000
United States of America	4,633,000	4,702,000	4,190,000	4,931,000	4,500,000
Russia	992,000	1,513,000	1,631,000	1,527,000	1,455,000
Austria-Hungary	2,425,000	3,117,000	2,661,000	2,835,000	3,017,000

The trade with all countries, with the exception of Ceylon, Russia, and the United States, shows a substantial recovery from the depression of the preceding year, but the share of the United Kingdom is again a smaller proportion of the whole than in 1896–97 and previous years, owing partly to trade, which was formerly carried by way of the United Kingdom, having been diverted into other more direct routes.

The following figures show the proportionate share of each province in the foreign sea-borne trade in merchandise, and of the five chief ports in the total trade in merchandise and treasure combined :—

Provinces.	1896–97.	1897–98.	1898–99.	Ports.	1896–97.	1897–98.	1898–99.
Bengal	43·13	43·83	40·81	Calcutta	39·68	39·32	37·41
Bombay	34·15	31·19	33·46	Bombay	38·69	38·17	39·1
Madras	10·04	10·67	9·08	Madras	5·4	5·28	4·27
Burma	7·92	8·78	9·53	Rangoon	5·82	6·37	6·83
Sind	4·76	5·53	7·12	Karachi	4·52	4·95	6·38
Total	100	100	100				

The greater part of the trade in treasure belongs to Bombay; in merchandise Calcutta was considerably ahead of Bombay, the former showing £49,000,000 and the latter £41,000,000 as the total value of their export and import trade. The net imports of treasure were £2,000,000 below those of the previous year, owing to a decrease in the silver imports which counterbalanced the considerable increase in the imports of gold.

There was a sensible increase in the frontier trade, which was favourably affected by the improved material condition of India and by the cessation of hostilities on the north-west frontier. Of the total of £7,588,445, thirty-seven per cent. crossed the north-west frontier, including Kashmir, while Nepal accounts for no less than 32 per cent. The latter trade is carried on, not so much with the Valley of Nepal, as with the rice lands which skirt the southern face of the mountains. Trade with Kashmir has increased in a satisfactory manner. The trade with Western China, so far as it is registered, grows very slowly; but there is reason to believe that a large part, perhaps half, of the frontier trade of Burma escapes registration. Land trade.

TRADE.
Coasting trade.

The merchandise and treasure carried by coasting vessels is said to have represented a value of £22,080,455 during 1898–99, compared with £25,652,157 in 1897–98, a fall which was largely due to the cessation of the famine and the consequent return of the Burma rice to its usual markets in Europe.

MANUFACTURES.

MANUFACTURES.
General.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products of British factories. Meanwhile, without any protection, favour, or advantage other than is afforded by cheap Indian labour and by the production of raw materials in India, an important manufacturing industry has been growing up, and steam power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. Steam power is also largely employed in factories on tea gardens and indigo estates.

There were at the end of the year 1898–99 in British India and Native States 176 cotton mills worked by steam, containing 37,540 looms and 4,456,000 spindles, and giving employment on an average to 150,000 persons every day. The capital invested in the industry is estimated to be about £10,000,000. Five of the mills were not worked at all during the year; 75 of them were in Bombay city and 52 elsewhere in the Bombay Presidency, which possesses 72 per cent. of the mills, 80 per cent. of the looms, and 71 per cent. of the spindles in all India. The consumption of cotton in the mills is about 1½ millions of bales, or nearly half of the cotton produced in India. The outturn of yarn in recent years has increased as follows in British India:—

——	Counts above 20*s*.	Lower Counts.	Total.
	Lbs.	Lbs.	Lbs.
1895–96 - - -	41,606,129	388,865,873	430,472,002
1896–97 - -	54,657,671	364,538,729	419,196,400
1897–98 - - -	61,177,032	392,482,314	453,659,346
1898–99 - -	61,763,170	440,853,815	502,616,985

The general result for all India, including such Native States as have imposed excise duties on cotton manufactures, is an increase of 10·76 per cent. in the total outturn of yarn for the year.

The Bombay Presidency produced 72 per cent. of all the yarn, Bengal 9 per cent., Madras nearly 6 per cent., the North-West Provinces 6 per cent., and the Central Provinces 4 per cent. The proportion of higher-count yarns, 12 per cent. of the whole, was smaller than in the previous year, although the actual amount increased. The industry had to a large extent recovered from the influence of the plague, but in the present year, 1899–1900, the condition of the market in China, and the recurrence of famine, have again had a bad effect on it. The production of woven goods by mills in India was 98,658,000 lbs., of which 82,366,000 lbs. were from the Bombay Presidency. There is hardly any weaving done by factories in Bengal; Madras and the Central Provinces contributed 6 and 5 per cent. respectively of the woven goods. These goods are mainly unbleached grey fabrics; only in Madras did any material portion of the weaving consist of finer goods, and there these fabrics were 39 per cent. of the production.

The number of jute and hemp mills was 33, containing 13,371 looms and 278,858 spindles, and employing a daily average of 94,540 persons. All but three (of which one is in the French settlement of Chandernagore) are in

Bengal; of the other two, one is at Cawnpore, and the other—the only hemp mill—is at Vizagapatam. The capital employed by these mills is about £3,500,000. In 1879-80 the corresponding figures were 21 mills, 26,826 hands, 4,876 looms, and 69,456 spindles. There were four woollen mills at work at the end of 1898, containing 21,444 spindles and 588 looms, and producing goods valued at more than £200,000 a year. The fabrics consist chiefly of blankets, serges, and cloths worn by the Army and the police. MANUFACTURES.

There were 122 rice mills for husking and cleaning rice, and about 65 large saw mills, most of which are in Burma. Of the nine paper mills in India, one at Gwalior was not worked during the year. The value of the paper produced in 1897-98 is stated at £407,000; most of the paper used in Government offices is now obtained from Indian mills; the value of papers imported into India in 1898-9 was £246,000 as compared with £215,000 in 1897-98. The paper factories employed 4,187 hands, and the materials they used were chiefly moonj grass, jute and hemp cuttings, straw and rags of different kinds. Small paper works, making common paper without machinery, exist in several provinces, but for these petty industries no statistics are available. In 1898 there were 27 breweries at work, which produced during the year 5,897,000 gallons of beer and porter, or 468,000 gallons more than they yielded in the previous year. The Commissariat Department bought 2,855,000 gallons of this malt liquor, as compared with 2,589,000 gallons purchased in 1897, for the use of European soldiers. The largest brewery was at Murree in the Panjab Himalayas, and the output of that concern was over a million gallons in 1898. The quantity of beer, porter, and cider imported into India was 3,231,000 gallons in 1898–99, or more than one-half the quantity produced in the country.

Among other "large industries," which are shown in the Indian Returns for 1897, may be mentioned:—

Silk mills	7	Oil mills and wells	165
Soap factories	29	Flour mills	87
Tanneries	144	Ice factories	55
Iron and brass foundries	89	Pottery and tile factories	130
Sugar factories (large and small)	228	Bone-crushing factories	16
Coffee works	52	Tobacco and cigar factories	32
Cotton ginning factories, cotton presses, and jute presses	733	Silk filatures	67
		Glass factories	7
Cotton and woollen spinning and weaving establishments, not classed as mills	21	Saltpetre refineries	1,899
		Dye works	6
Rope factories	17	Indigo factories, large and small	7,686
Cutch and lac factories, large and small	142	Jute presses	120

The question of the feasibility of manufacturing iron and steel from Indian iron ores by means of Indian coal has recently formed the subject of a special inquiry, which was entrusted to Major R. H. Mahon, R.A. The report of that officer was favourable, and it was issued to, and reviewed by, many trade and other journals in the course of the year 1899. His main conclusions are that under the most promising conditions the industry would succeed, and that those conditions are that the ironworks should be in the neighbourhood of Calcutta, drawing most of the ore from the Madras ironfields and the coal from Bengal. He does not, however, deny that works started on other sites, such as Salem in Madras, or in the interior of Bengal, might be remunerative. The works would have to be planned on a large scale, with the most modern machinery, and the strictest economy in assembling the iron, coal, and lime would be a necessary element of success.

In the ensuing paragraphs the figures given are, wherever it is possible, those for 1898–99; but in some cases the information has not been received, and the figures for 1897–98 are given.

Bengal contains jute mills, cotton mills, paper mills, collieries, iron and brass foundries, including the only large ironworks in India, and the largest pottery

MANUFACTURES.

factory in India, besides factories for lac, sugar, rope, indigo, and saltpetre, tanneries and foundries. The coal output amounted to 3,622,000 tons, or 500,000 tons more than in 1897, and over 78 per cent. of the total output of coal in India. Seven collieries were opened in 1898, and the number of persons employed rose to 48,600. The mica industry and the large pottery works at Raniganj continued to do well. The progress of the Barrakur iron works is noted above, in the portion of this Statement which deals with mineral resources.

North-West Provinces.

Among native industries in the North-West Provinces, brass-work, stone-quarrying and stone-carving, and weaving, are the most important; but these Provinces, which contain more large cities than any part of India, possess a great number of flourishing arts and crafts. The ordinary industries supply for the most part only local needs. There are six cotton mills, four of them at Cawnpore, which in 1897–98 contained 1,638 looms and 257,622 spindles, giving employment to 7,496 persons.

Punjab.

The chief industries of the Punjab are, two collieries, seven breweries, one woollen and four cotton mills, 84 cotton pressing and ginning factories, nine flour mills, 17 indigo factories, one large sugar concern, and 10 iron and brass foundries.

Burma.

The large industries of Burma are 81 rice mills, 52 timber mills, 11 petroleum wells and works, and four ironworks for working imported iron and brass, not for smelting iron ore. The average daily number of operatives employed in the Burma factories is stated to have fallen from 24,300 to 16,200, but this appears to be due to a different classification of persons employed in the rice mills in Rangoon. Among the more important local and indigenous industries are boat-building, weaving, gold and silver work, wood-carving, cigar-making, *ngapi* or fish-curing, pottery, lacquer-work, brass-work, and marble-work.

Central Provinces.

The only important manufacturing industry in the Central Provinces is cotton-spinning and weaving. There are six mills, besides ginning, cleaning, and pressing mills, including the Empress Mills at Nagpore, which is one of the most successful concerns of the kind in India, employing 3,300 hands, and having dealt with nearly 5,000 tons of cotton in the year 1898–99. At the other five mills the number of persons employed was nearly 4,100, and the amount of cotton worked up was 6,200 tons.

Assam.

The production of tea continues to be the first industry of Assam. The number of tea gardens at the end of 1898 was 818, with an area of a little more than a million acres, of which 276,000 acres were under tea plants. This is dealt with more fully in the chapter on Agriculture above. There were 11 sawmills engaged in the manufacture of tea boxes. There are coalfields at Lakhimpur and in the Naga hills, the former of which gave employment to 1,369 persons in 1898, and yielded 199,000 tons of coal.

Madras.

Weaving continues to be the most important domestic industry in Madras, though it has greatly declined under the competition of machine-made goods. A monograph on the woollen fabric industry, published in 1898, shows that though the demand is maintained, it is not for the best class of carpets and rugs. The chief seat of the industry is Ellore. Eleven cotton mills in the Presidency employed 12,000 hands during 1897–98, who worked 1,705 looms and 274,254 spindles. One mill for weaving hempen bags ran 98 looms and 2,084 spindles. The number of cotton presses in the Presidency was 48. Forty coffee-curing works turned out in 1897 cleaned coffee to the value of £73,100. The tanneries of Madras, Madura, Bellary, and Vizagapatam produced large quantities of good leather. Twenty-six factories in South Canara, Tinnevelly, and Malabar made large quantities of tiles and cement, and employed about 4,000 hands. Forty-one cigar factories were at work in the Godavari and the southern districts, and turned out £49,000 worth of cigars. Indigo is made on a small scale and of inferior quality

at some hundreds of vats, and was exported in 1898–99 to the value of £623,000, against £711,000 in the previous year. Sugar was made on a large scale at six factories, at some of which considerable quantities of rum were distilled. MANUFACTURES.

Chief among the industries of the Bombay Presidency is the cotton mill industry. It appears from the report of the Bombay Millowners' Association that in July 1899 there were 134 mills in the presidency, or one more than in the previous year; and that 82 of these were in the city of Bombay. The total number of spindles rose from 2,964,000 to 3,315,000, and the number of looms from 29,400 to 30,600. The average daily number of hands employed was 110,600, or 11,000 more than in 1898. The approximate quantity of cotton consumed was 210,000 tons. Six mills in Bombay city, and three elsewhere in the Presidency were in course of erection. In addition to the workshops belonging to the railways and the great steamship companies, 24 factories in Bombay and Sind turn out iron and brass work of all kinds. Among other large factories using steam are dye-works; woollen-weaving mills and wool-cleaning mills; 267 cotton ginning and cleaning mills; saw mills; paper mills; bone-crushing mills; rice-cleaning mills; flour mills; and mills for pressing oil. Bombay.

Of the domestic industries and manufactures conducted after native methods the chief are hand-loom weaving and cotton-spinning, which supply the hand-woven goods still worn by the majority of the lower classes; calico dyeing and printing, gold and silver lacemaking, the making of silk, and of garment pieces partly of silk for women's wear, the weaving of cotton and woollen carpets; brocade work, and embroidery of gold and silver, for which Guzerat, Nasik, and Sind workmen are specially renowned; the making of glass bangles or bracelets; wood-carving, the art speciality of Guzerat; and sculpture, which is practised in Cutch and Kathiawar; in these three provinces also silver work is done of a special kind and of much excellence. In many parts oil for domestic use, for soap-making, for lubricating machinery, and for lamps is expressed by labour of cattle and men from castor-beans, sesame, rape-seed, poppy-seed, mhowra (or mhowa) nuts, linseed, ground-nuts, and cocoa-nuts. Cotton-seed oil and cake are made on a small scale and to a limited extent.

The only large factory in Berar is the steam mill at Badnera, where yarn and cotton cloth are manufactured. It produced 6,270 bales of 400 lbs. of twist and yarn, and 2,545 of cloth, against 5,796 and 2,442 bales respectively in the preceding year. The number of persons employed in this factory was 1,215. There are altogether 31 steam cotton presses and 66 cotton ginning factories in the province. The two oilpresses at Amraoti produced 214,000 gallons of oil, or 10 per cent. less than in 1897-98. The domestic industries of Berar are the weaving of silk cottonpieces with embroidered borders, cotton carpets, coarse cotton cloth and garment pieces, turbans and blankets. Berar.

FACTORY ACT.

The present Indian Factory Act came into force on the 1st January 1892. The changes introduced into the previous law were, briefly,— FACTORY ACT.

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours;

The hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day;

Hours of rest during work were prescribed for all labourers, namely, half an hour in the middle of the day for all hands; and one hour interval for women workers.

FACTORY ACT.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections, to have been as follows :—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1897.

PROVINCE.	Number of Factories working, and liable to be inspected.	Average Number of Hands employed daily.				Number of Factories.				Number of Persons convicted of breach of Act.	Number of Accidents Reported.			
		Men.	Women.	Children.	Total.	With Sunday Holiday.	With other Weekly Holiday.	Exempted from Sunday Stoppage.	Worked otherwise.		Fatal.	Serious.	Minor.	Total.
Bengal	180	128,957	20,927	15,143	165,027	132	1	33	13	3	28	279	246	553
North-Western Provinces	63	23,155	1,373	1,403	25,931	46	9	5	2	–	5	48	88	141
Punjab	117	10,682	978	691	12,348	64	33	7	13	–	3	15	59	77
Burma	132	15,999	110	72	16,181	126	3	3	–	9	9	39	53	121
Central Provinces	46	8,219	2,515	445	11,179	23	20	–	3	–	–	9	19	28
Madras	70	25,329	2,654	2,115	30,098	61	8	1	–	–	3	18	162	183
Bombay	345	115,291	27,669	7,293	150,253	253	86	3	–	2	15	102	1,068	1,185
Assam	11	1,188	426	109	1,723	11	–	–	–	–	–	2	–	2
Ajmere	4	609	243	117	969	1	2	–	1	–	–	1	5	6
Berar	98	5,165	3,711	144	9,020	27	71	–	–	1	2	4	14	20
TOTAL, 1898	1,066	334,594	60,603	27,532	422,729	744	233	52	32	15	65	537	1,714	2,316
TOTAL, 1897	981	335,702	60,271	25,572	421,545	722	172	46	38	14	61	529	1,724	2,314

Bombay.

Of the factories in the Bombay Presidency, 269 are cotton factories, employing an average daily number of 118,558 hands. The number in Bombay city at the end of the year was 136, in Khandesh 84, in Hyderabad 33, and in Ahmedabad 28. Of the total number, 154 factories were seasonal, while 191 were at work throughout the year. The average number of hands employed was 7 per cent. greater than in 1897, when great disturbance was caused by the fear of plague; but in Bombay city considerable difficulty was still experienced, and higher rates of wages had to be paid in many instances; and the plague and the competition of American cotton prevented a return to the conditions of the mill industry in 1896. All the factories excepting two were inspected, and recommendations made for the improvement of sanitation and ventilation, and for the fencing of machinery were promptly carried out. The normal wages earned in factories throughout the Presidency are said to be 4 annas for a man per diem, 3 annas for a woman, and 2 annas for a child, but as stated above, there was some increase above ordinary rates in Bombay city. Most of the operatives up-country subsist on factory labour only for certain portions of the year, and it is the general opinion that this labour is found more lucrative than agriculture. Accidents in mills remained at about the same figure as in 1897; most of the serious accidents that occur are attributed to the negligence of the mill hands. The number of children employed in Bombay mills increased, but there is no reason to suppose that the rules on the subject have been infringed.

There was an increase of 13 in the number of factories at work in Bengal, where 84 mills and presses were engaged in the jute industry. Three factories were not inspected, but in the rest the results of inspections were generally satisfactory, and suggestions for improvement were readily adopted. The rules regarding the employment of women and children were duly observed. The plague scare of 1898 produced no serious diminution of labour except in Calcutta, and even there the effects seem to have been much smaller than was at the time believed. It was hoped that the question of a Saturday half-holiday in jute mills had been solved by an agreement of millowners to close their mills entirely on Saturday for six months; but the plan fell through, and no settlement has yet been made. Wages are regularly paid, and average per diem $2\frac{3}{4}$ annas for men, $1\frac{1}{4}$ annas for women, and 1 anna for children, which is generally higher than agricultural wages in the province.

In Madras the inspections of factories fell short of the prescribed minimum, but the reports as to the sanitation and the fencing of machinery are satisfactory. FACTORY ACT.

In Burma the number of operatives recorded as having been employed during the year fell 30 per cent., owing apparently to a change of classification of the employees in Rangoon rice mills. Almost all the factories in Burma are either saw mills or rice mills. All factories excepting five were inspected during the year, and the reports are generally good. Eight fatal accidents occurred at Rangoon.

CHAPTER XV.

FRONTIERS AND NATIVE STATES.

FRONTIERS AND FRONTIER STATES.

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Baluchistan.

In Baluchistan the year 1898–99 was comparatively uneventful. The agricultural season was poor, the province suffering from a series of bad years. The revenue of £57,000, however, was realized without much difficulty. The closing balance of the administration was reduced from £22,000 to £11,000. Some improvement was carried out in the organisation and strength of the tribal lines. The political atmosphere was troubled by raids across the Afghan border, by unrest among the Marris and Bugtis, many of whom emigrated to Afghanistan, and by crimes and outrages committed by the Waziris, and still more by the Largha Shiranis under the Punjab administration. For the pacification of the latter tribe an arrangement was effected before the end of the year for establishing a closer political control, which is expected to prevent further trouble in this quarter. In Kalat itself it was decided to disband the State troops. Disputes occurred in the Khan's family, and there were complaints on the parts of the zamindars of the proceedings of the Khan's agent. The Vakil was dismissed, and a new one appointed by the Khan. An agreement was also executed by him promising to redress grievances and to abide by the ancient customs of the country. In Mekran it was decided to introduce a form of tribal administration under Mir Mehrulla Khan, Raisani, as Nazim. In the tract under the charge of the Political Assistant at Chagai, the principal work was connected with the new trade route between Quetta and Seistan. The water supply was improved by cleaning out old and sinking new wells, a better postal service was established, a survey for a telegraph line was carried out; and, notwithstanding the unsatisfactory condition of frontier relations with Afghanistan and Kharan, the encouragement given to trade showed itself in an increase from £39,000 to £49,000 in the trade returns.

The Punjab Frontier.

On the north-west frontier the year was one of settling down after the widespread disturbances of the preceding autumn and winter. The chief events were the conclusion of arrangements with the Afridis in November 1898 and with the Orakzais in January 1899, the payment by the Madda Khel of the Tochi of the balance of the fine of Rs. 10,000 imposed on them for the Maizar outrage, and the introduction of closer political control over the country of the Largha Shiranis on the Dera Ismail Khan border. Offences were rife in Waziristan, and a disturbance of considerable, though local, importance occurred in the corner between Bannu, Kohat, the Tochi and Kurram, where outlaws found a temporary Alsatia. With the Afghan officials across the border, difficulties continued to arise from the want of reciprocal action on their part in the redress of grievances of the tribes living within the British sphere of influence. Raids and counter-raids have been not infrequent.

In the autumn of 1898 a large jirga of the Afridis met and accepted unconditionally the orders of Government on the subject of the Khyber Pass, which were as follows :—

First.—The Afridis by their own acts ruptured all agreements, forfeited all allowances, and forced the British Government to take and hold the Pass, which, as already announced by Sir William Lockhart, will be managed and controlled as the British Government think most desirable.

Second.—The Pass will be kept open for trade. The British Government will build a fort at Landi Kotal and posts between that and Jamrud, will keep up a good road or roads, and, if they want it, a railway, and will take such measures as they think fit to punish offences and preserve order on road and railway, in the fort and posts, and in the neighbourhood where necessary for their purposes.

Third.—The Afridis will have no dealings with any power but the British. They will be left to manage their own affairs in their own country; but, in the Khyber Pass, they are responsible to the British Government that they will co-operate to preserve order and security of life and property on roads or railway and within the limits of the Pass.

Fourth.—The British Government will give allowances as formerly to the Afridis for discharging this duty, and will maintain a militia recruited from the Afridi and other tribes, and commanded by British officers. The British Government do not undertake to always keep troops at Landi Kotal, but will make arrangements for supporting the militia if circumstances require. FRONTIERS AND FRONTIER STATES

Fifth.—Arrangements for trade in the Khyber will be made by the British Government, and the militia will be used for guarding traders.

Sixth.—The allowances granted by the British Government will commence to reckon from the date of the adhesion by the tribe to the terms settled by the Government of India, but they are subject to withdrawal for misbehaviour in the Pass, in British India, or against the friends or allies of Government.

In accordance with these conditions, a new militia corps, called the Khyber rifles, consisting of two battalions of 600 men with three British officers each, was constituted to take charge of the Pass, and the British regiments were withdrawn from Landi Kotal at the end of the year. The peace of the Khyber was satisfactorily preserved. An important change in the control of the Khyber was effected by transferring the political charge from subordination to the Punjab Government to the direct control of the Government of India.

In the Kurram district the principal offenders were the Chamkannis. It was finally decided to punish their raids by a counter-raid, which was very successfully carried out. In the Bannu district operations were also undertaken against the Gumatti outlaws.

Proposals for the re-organisation of the Border Military Police and levies in Kurram and Waziristan were not carried into effect till after the close of the year. Of the rest of the tribes in relation with the Punjab Government there was nothing unusual to report during 1898–99.

Among the tribes in the Dir and Swat agency, which is under the Government of India, there was some fighting in Jandol, followed by an agreement, arrived at through the mediation of the Political Agent, between the Nawab of Dir and the Khan of Nawagai. There was no movement against the British officers or garrison, and the Chitral reliefs passed up and down the road without interference or a shot being fired. In Chitral itself, the feeling of the country was friendly, and tranquillity was maintained. Cultivation extended, and the year was fairly prosperous.

In Gilgit, which is a dependency of Kashmir, the harvests were scanty, and there was some distress. Better dispositions of the Kashmir troops were carried out, and it is to be noticed that the Babuzar Pass was used for the relief of a portion of the garrison. Kashmir and Feudatories.

Of the Hunza and Nagar feudatories there is little to chronicle beyond the difficulty in carrying out the arrangements with the Chinese authorities for the cultivation of the Raskam lands of the Taghdumbash Pamir by Hunza people.

The financial position of the Kashmir State is indicated by the following figures:—

——	Receipts.	Expenditure.	Surplus or *Deficit.*
	£	£	£
1897-98 (Accounts) - -	448,000	299,700	48,000
1898–99 (Revised Estimate) - -	420,300	449,300	*29,000*
1899–1900 (Budget Estimate) -	459,500	427,200	32,300

The deficit shown in the State accounts for 1898-99 is only apparent, as the expenditure includes a sum of £33,900 for the purchase of Government securities, which should therefore not have been shown as expenditure. The financial position of Kashmir is very sound as the Durbar has a working balance of 30 lakhs of rupees, and an invested fund of 40 lakhs, and the surplus anticipated for the current year is nearly 3 lakhs. The revenue from land, customs, and excise is steadily progressive. The forest receipts were large, and a reduction

FRONTIERS AND FRONTIER STATES.

in the number of trees to be felled is now considered prudent. There is again some tendency towards an increase in the expenditure on military works in Gilgit, and the improvement of the land revenue establishment and provision for re-settlement in the Kashmir valley and elsewhere are also causing increased outlay. Except in respect of the financial situation, no report on the administration of the State has been received in the past year.

The trade with Chinese Turkestan by the Leh and Ladakh route has fallen off greatly in the last three years from 62 to under 40 lakhs. This is attributed to the heavy taxation of *charas* on its entry into the Punjab, imposed on the recommendation of the Hemp Drugs Commission. The competition of Russian goods is also, no doubt, a cause. The Ladakh road is being gradually improved year by year.

Nepal.

Nothing occurred to disturb the friendly relations of Nepal with the Government of India. Of its administration no report is received.

Sikkim and Tibet.

Another year passed without progress being made towards the settlement of the Sikkim Tibet frontier or of the arrangements for the encouragement of trade, contemplated by the convention of 1890. The growth of trade with Tibet registered at Yatung is shown by the following figures which include treasure:

	Imports into British Territory.	Exports from British Territory.	Total.
	£	£	£
1893–94 - - - -	23,920	22,107	46,027
1894–95 - - - -	42,597*	41,117*	83,714*
1895–96 - - - -	47,137	57,406	104,543
1896–97 - - - -	52,709	59,201	111,910
1897–98 - - - -	58,648	54,889	113,537
1898–99 - - - -	74,735	67,846	142,581

* For eleven months only.

The year was not unfavourable in Sikkim, but owing to failure to collect the revenue within the year, there was a considerable deficit, the expenditure amounting to £6,000, against an income of £4,400.

Bhutan.

There is little information regarding Bhutan; but its administration, under the influence of the Tongsa Penlop, is exercised in a friendly spirit towards the British Government.

Assam Frontier and Manipur.

In Manipur the year was marked by a terrible epidemic of cholera in which 3 per cent. of the total population of the State perished. But for this, the year would have been wholly prosperous, as the crops were good, prices low, and the people peaceable and contented. The young ruler is being educated at the Mayo College. Meanwhile the State is being administered, and very successfully administered, under the superintendence of the Political Agent. A measure of disarmament is being gradually carried out. The income of the State was £23,000, and the year closed with a balance of £14,000.

Among the Assam frontier tribes the year 1898-99 passed mainly without incident. The blockade of the Abors was continued, and pending their submission they were prevented from occupying houses in the plains. There were some murder cases and disputes across the border, but no punitive operations were rendered necessary.

Lushai Hills.

The North and South Lushai Hills were amalgamated into one district under the Assam administration on the 1st April 1898. The new arrangements worked well, and the year was one of general peace and prosperity. The possession of arms is controlled, and the work of withdrawing unlicensed arms from the population was continued with success. Arrangements were satisfactorily made for the settlement of the district under the various petty chiefs. There was no difficulty in realising the house tax. The question of labour continued to be a difficulty, but it is reported that voluntary labour is year by year more freely offered.

FRONTIERS AND FRONTIER STATES.

Chin Hills (Burma).

In the adjoining Chin Hills the principal event of 1898-99 consisted in disarmament. Some opposition was encountered by a body of chiefs, known as the "Falam Council". Their obstruction was overcome by the deportation of several of them; thereupon the disarmament of the Falam subdivision, as well as of the other Northen subdivisions, was successfully accomplished. The disarmament of Lushailand and Manipur, to which references has already been made, will be important in checking a principal source of supply of unlicensed guns among the Chins. A small rising occurred early in the year, when a simultaneous attack was made by the tribesmen on the Yatlier outpost and on a Gurkha settlement between Falam and Minkin; the attacks were repulsed and the abortive rising promptly suppressed.

The Pakokku Chin Hills are now administered as a Chin tract, instead of as a portion of the Pakokku district. A difficulty in its management arises from the absence of any recognised village or tribal unit. The Chiefs or headmen appointed by Government are merely collectors of tribute. On this frontier as well as on the upper Chindwin frontier and in the Arakan Hill Tracts the year was one of tranquillity.

Kachin Hills (N.E. Frontier of Burma).

These Hills were generally free from disorder during 1898-99. The delimitation of the Chinese frontier in this region was completed; and the tracts included under the agreement within the British border were taken under administration. Crime was less, and the work done by the British officers on tour was the more successful because generally uneventful. The only operation of a punitive kind undertaken was against the village of Matan where the chief had been guilty of raids and the enslavement of many neighbouring villagers. The operation was carried out without loss, and the necessary punishments inflicted. Difficulties were experienced from the apathy of the adjoining Chinese officials, who failed to co-operate in restraining or punishing raids and offences committed in British tracts from their side of the Border. Tribute was realised without trouble, and the condition of communications improved.

Shan States.

An important event for the Shan States during 1898-99 was the demarcation of the Chinese boundary affecting principally Kengtung in the Southern and Hsenwi in the Northern Division. Peace was unbroken. The progress of the Southern Shan States in material prosperity and civilised administration is described as continuous and highly satisfactory. This is almost equally true of the Northen States. The tribute, which is quinquennially assessed, and which for the Southern States had been increased from £13,300 to £15,000, was punctually paid, except in so far as it had been remitted in some of the Northern States with a view to its expenditure by the Sawbwas on the improvement of roads. Carts are reported in many parts to be replacing pack transport, and trade is everywhere increasing. In the Southern States, trade is shown to have increased from £30,000 in 1892 to nearly £600,000 in 1898. With the influx of Indians and Burmans on the new roads and railway works, it is also to be noticed that crime has increased. For the administration of civil justice in the Northern division a simple code of procedure has been prepared. The system of requiring the Chiefs to prepare budgets of revenue and expenditure is having a good effect. The Chiefs of the Southern States were encouraged by a durbar held at Taunggyi in May 1898, at which the superintendent delivered an address, pointing out to the Chiefs among other matters the improvements effected in their county, the principles of taxation they should adopt, the proper method of dealing with foreign residents and immigrants, of protecting trade, of registering arms, and of reporting and dealing with crime, the necessity of dealing with the vice of gambling so prevalent among the Shans, and the care that is required for the proper planting of trees and the preservation of forests.

The first census of the population of the Kengtung State was taken and gave a return of 172,566 inhabitants as compared with the previous estimate of 40,080.

China, France, and Siam.

Besides the demarcation of the Chinese frontier already alluded to there was nothing requiring record in the relations with the adjoining powers of China, France, and Siam on the Eastern border.

NATIVE STATES.

NATIVE STATES.

The population of the Native States, including the Shan States, based on the census of 1891, may be taken at 67½ millions, and their aggregate revenue at 23 crores of rupees (£15,000,000), their aggregate payments to the Government of India amounting to £607,000. The number of their military forces, excluding Nepal, is now returned at 90,000, mostly ill armed and ill trained men. This total does not include the Imperial Service troops, organised to take part in military operations in line with those of the Indian army; of which the strength was on 1st July 1899, 17,554, as shown in the margin, the total in the previous year being 17,782. The maintenance of these troops costs the States concerned about £419,000, the outlay of the Indian Government on their organisation and inspection being about £14,000. They are described as generally efficient and ready for service. During the year 1898–99 the following changes were effected. The Bhurtpore Lancers were abolished, and it was decided by the Durbar to maintain in their place a transport corps of 300 carts and 600 mules. In Mysore the cavalry regiment is being reduced by 100 sowars, and a transport corps of 300 carts and 700 ponies is being organised.

Imperial service troops.

Cavalry	7,387
Artillery	293
Sappers and Miners	338
Infantry	7,885
Camel Corps	494
Transport Corps (men)	1,157
Total	17,554

Dacoity.

The suppression of dacoity in the Native States is a matter of imperial concern, and at times necessitates interference on the part of the paramount Power, particularly in those tracts of Native States' territory where the jurisdictions of the Chiefs are much intermingled, and where the dacoits have, therefore, great advantages in organising their crimes with comparative impunity. For the State of Hyderabad and the large Agencies of Central India and Rajputana there has long existed an organisation connected with the Government of India, charged with the duty of suppressing thuggee and dacoity. The agencies of this Department worked during 1898-99 in complete harmony with the durbars and the political officers. The total number of cases reported to the Department fell from 1,152 in 1897 to 599 in 1898. The improvement is due in great measure to the more prosperous condition of the population, and cannot be expected to be maintained in the afflicted districts during the renewed famine of 1899–1900. In Rajputana the year 1898 was noteworthy for the suppression of a dangerous gang of dacoits in Dholpur. In Central India the greatest improvement took place in Gwalior, where the vigorous action of the Maharaja Scindia was rewarded by excellent results. The Department was also able to assist the Durbars of the smaller States in dealing with organised crime. In both these Agencies progress was made in the settlement of criminal tribes, and it may be hoped that the reclamation of these hereditary criminals will prove one of the most effective measures in the reduction of crime.

Hyderabad and the Assigned Districts.

In the Hyderabad Assigned Districts there was a larger surplus in 1898–99 than in any year since 1877–78, the income (£709,000) being the highest on record and the expenditure (£598,000) lower than in any of the last seven years. A sum of £31,487 was paid to the Nizam on account of the surplus of the province during 1898–99.

No report of the administration of the Hyderabad State is issued.

Mysore.

The administration of the Mysore State in 1898-99 was marked by a virulent outbreak of plague, of which there were 14,381 cases and 12,273 deaths, Bangalore and Mysore cities and the Kolar goldfields being the principal sufferers. The outbreak of plague had its effect on the financial situation causing a decline of receipts and a heavy special outlay. Altogether there was a deficit for the year of £150,000. Revenue heads yielded £90,000 less than in 1897–98, and the following charges of an exceptional character were included in the expenditure:—Plague administration, £50,000; extensions and improvements of the Bangalore and Mysore cities, £7,000; Damodar Dass' Charity Fund (an old outstanding obligation) £40,000; and capital expenditure on reservoirs and railways, £73,000, making a total of £170,000. The income of the State may be stated at £1,186,000 and the expenditure £1,336,000.

NATIVE STATES.

In consequence of the plague the annual meeting of the Mysore Representative Assembly was suspended; a short account of the administration of the State during the past year was, however, published in the Mysore Gazette for general information.

Baroda.

The report for the year ended July 1895 is the last Administrative Report issued by the Baroda Durbar. In 1898-99 plague continued to prevail in certain parts of the State. Evacuation of places infected was the remedy principally resorted to. The agricultural season in the Baroda territories in Kathiawar was unfavorable, and there were vehement appeals from the cultivating classes for remissions of rent. In the Kadi division a serious disturbance occurred owing to the opposition of certain villagers to a survey of their lands which had been ordered by the Durbar. Finally the military as well as police were employed to enforce submission, and 13 of the rioters were killed and 10 wounded. The State mint recoined 14⅓ lakhs of rupees out of old Babasai and Siccai coins. There is some complaint owing to the low Exchange value of the Baroda rupee.

Rajputana.

The following is a Table of the Rajputana States, with their revenues converted into sterling at 1*s.* 4*d.* the rupee:—

State.	Area in Square Miles.	Population in 1891.	Actual or Estimated Revenue.
			£.
Udaipur (Mewar)	12,861	1,862,478	250,000
Dungarpur	1,440	165,400	15,811
Banswara, &c.	1,937	212,269	18,035
Pratapgarh	959	87,975	27,785
Jaipur	15,349	2,832,276	454,550
Kishangarh	874	125,516	40,563
Lawa	19	3,360	300
Jodhpur (Marwar)	37,445	2,521,727	343,307
Jesalmer	16,039	115,701	12,744
Sirohi	1,966	128,977	26,524
Bikaner	23,090	831,955	142,961
Bundi	2,225	295,675	48,267
Tonk	1,415*	198,934*	81,650
Shahpura	406	63,646	19,757
Bharatpur	1,961	840,303	180,000
Dholpur	1,156	279,890	83,000
Karauli	1,229	156,587	34,489
Alwar, &c.	3,051	767,786	191,453
Kotah	3,803	526,267	168,395
Jhalawar	3,043	343,601	86,027
Total	130,268	12,220,343	2,225,618

* Excluding the Tonk pergunnas in Central India.

Kunwar Bhawani Singh was installed in February 1899, as the Chief of the newly-constituted State of Jhalawar, with the title of Raj Rana and a salute of 11 guns. To Kotah were transferred the remaining portions of the old Jhalawar State. The Maharaja of Bikaner was invested with ruling powers in December 1898. The decoration of G.C.I.E. was conferred on the Maharaja of Karauli and that of C.B. on the Maharaj Rana of Dholpur and Maharaj Dhiraj Sir Pratab Singh of Jodhpur.

A failure of crops occurred in parts of Jodhpur, Bikaner, and Jaisalmir. Elsewhere harvests were good and prices low.

The question of currency reform is important in many of the Rajputana States. The difficulty is being solved in Pratabgarh by the substitution of the British rupee for the Salim Sahi rupee.

NATIVE STATES.

Settlement of land revenue is proceeding in a considerable number of the States. It is noticeable that in the arrangements in progress precautions are generally being taken to prevent the alienation of land to the non-agricultural classes.

Railway construction is active. A noticeable feature is the construction of lines in several States with money borrowed from other more opulent Chiefs. For instance, a loan of 25½ lakhs from Mysore enables the Jodhpur Durbar to construct its section of the Balotra-Shadipalli line. The Tonk section of the Guna-Baran railway is being made with the aid of a loan of 17 lakhs from Gwalior. Other new railways are in progress in Kotah, Bikaner, Mewar, and Jaipur. The open lines in Jodhpur gave a return during the year of 10½ per cent. on their capital outlay; those in Bikaner and Mewar yielded 4 and 3½ per cent. on their capital respectively. Irrigation works are also being pushed on, and in Jaipur and other States they have proved highly remunerative. The total public works outlay in the Rajputana States in 1898–99 is stated at £611,000.

Central India.

The States in this Agency enjoyed another prosperous season, with crops decidedly above the average, prices low, and health generally remarkably good.

The much respected Maharaja of Dhar died during the year and was succeeded by his adopted son. The young chief of Panna was installed during 1898–99 in succession to his father who had died in the previous year. The Raja of Rutlam was invested with ruling powers, and the Maharaja of Datia received the decoration of K.C.S.I.

The administration of Gwalior continues to be carried on with energy and success under the personal direction of Maharaja Scindia. An effective campaign was carried out during 1898-99 against the dacoits who infested his territory. Nine of their gangs were broken up, and hundreds of dacoits brought to justice. Currency reform was pushed on. Quantities of coins of local currencies were received and melted down and their place supplied by British rupees. The land settlements were revised in terms of the latter at rates acceptable to the cultivators. Other State contracts were dealt with in like manner; and it may be shortly expected that only the British rupee will be recognised.

Regarding Indore no satisfactory report can be made, and particulars of the administration have not been published.

The Governor-General's Agent calls attention to the improved administration of the Bhopal State under its new minister; he also refers favourably to the management of the Rewa State, and notices that the restoration of the Umaria coalfields to that State at the close of the year 1898–99 was very acceptable to its Maharaja and Sirdars.

Bengal.

Some changes were made in the Cooch Behar State council during the year, and during the Maharaja's absence from May 1898 to February 1899, on a visit to Europe, arrangements were made for the administration of the State by the council. After the close of the year the post of Superintendent of the State became vacant and was filled by a British officer lent by the Government of India. A number of laws were passed and came into force during the year. One of them made penal the killing of cows in the State. The season was a moderately favourable one in Cooch Behar, and public health during 1898–99 was good. The loan of 3½ lakhs for the payment of the Maharaja's debts has been repaid to Government, and 4 lakhs out of the railway loan of 10 lakhs have also been repaid. The expenditure of the year, including repayment of the latter loan, was £152,000; there was a surplus of revenue of £5,000.

In Hill Tipperah State the year was prosperous and healthy. The State debt appears to have been liquidated; and there was a balance in hand at the end of the year of £11,000; the income of the year was £47,000.

Revised *sanads* were granted during 1898–99 to the Chiefs of the Chota Nagpore Tributary Mahals defining their status, powers, and responsibilities, and fixing for 20 years the tribute of those States which were liable to tribute. The jurisdiction of Government officers in criminal matters was at the same time laid down by notification. The people in these States are very backward; education showed no advance, and the working of medical relief and vaccination was not altogether satisfactory. Questions of mining concession and forest leases are growing in importance.

The Orissa Tributary Mahals are a more progressive group of States, and the Raja of Moharbhanj is stated to have maintained his reputation as an energetic ruler; but he has been warned against the danger of introducing a system of judicial administration too advanced for the requirements of the population. The forest rules adopted by him also appear to be too severe. The relations of the chiefs and the people generally appear to have been satisfactory. Public health was good, and there was a considerable advance in education as shown by the numbers of schools and scholars. Settlement operations are in progress in many of the States. The Orissa Tributary States had an aggregate revenue for the year of £134,000. NATIVE STATES.

The accounts of the State of Rampur show an income of £215,000 and an expenditure of £212,000 for the year ended September 1898. But this does not include large sums drawn from the treasuries and used presumably to meet the personal expenditure of the Nawab. The revenue system of the State, which depends on the sale of farming leases for short terms, has been condemned by the Lieutenant Governor, and the Nawab has been advised to introduce a regular system for the survey and settlement of the land revenue. In other respects also the affairs of Rampur are not considered satisfactory by the Lieutenant-Governor. The educational department, however, shows good results, and some of the other departments appear to be well managed. North-West Provinces.

The Tehri (Garwhal) State continues to be well administered. Its financial position is sound, with an income of over £20,000, a fair surplus, and a credit balance of over £50,000. Education is backward, and there is some dilatoriness in disposing of cases that come before the courts.

The following are the principal Punjab States and their areas, populations in 1891, and approximate revenues in 1898-99:— Punjab.

State.	Area in Square Miles.	Population in 1891.	Approximate Revenue in 1898–99.
			£.
Patiala	5,419	1,583,521	438,000
Bahawalpur	15,000	650,042	107,000
Jind	1,259	284,560	43,000
Nabha	928	282,750	47,000
Kapurthala	630	252,617	133,000
Mandi	1,000	166,923	28,000
Nahan (Sirmur)	1,096	124,134	34,000
Maler Kotla	167	75,755	20,000
Faridkot	643	115,040	24,000
Chamba	3,216	124,032	24,000

In November 1898 the Maharaja of Patiala was invested as a G.C.S.I. in recognition of his personal services and the excellent behaviour of his troops during the frontier campaigns. In respect, however, of the administration of his State, complaints have been frequent. There is a laxity evidenced by delays in dealing with correspondence; there are frequent petitions of villagers complaining of the exactions of officials, and there is financial disorder due to the Maharaja's excessive personal expenditure. During the year, Kanwar Ranbir Singh was appointed financial minister, and it is hoped that this step will lead to necessary financial reforms.

The Nawab of Bahawalpur died in February 1899, and has been succeeded by his eldest son, a minor. During the minority a British officer has been appointed superintendent of the State. The debts of the State are considerable, and the administration of the State has been in recent years starved to meet the ruler's personal extravagance.

In Jind the administration remained during the year in the hands of a council of regency, while the education of the young Raja was continued and satisfactory reports as to the progress made by the young chief were received. Since the close of the year he has been invested with full ruling powers,

Native States

subject to the advice for a time of a British officer. Meanwhile a large portion of the accumulated balance of the State is being invested beneficially in the construction of the Ludhiana-Dhuri-Jakhal railway.

The administration of Nabha under its Raja is as usual considered very satisfactory. That of Kapurthala is conducted with ability by Sardar Bhagal Singh, the Raja taking little interest in it. In Mandi affairs show no improvement, and the financial position is worse. A great loss befell the State of Sirmur (Nahan) in the death of the Raja, Sir Shamsher Prakash, in October 1898; he was succeeded by his son, Raja Surendra Bikram Prakash, who is likely to follow in his father's footsteps, and who has for some years been taking a prominent part in the administration of his State. There was also a change of ruler in Faridkot, since the late Raja died in August 1898. His successor was installed in December. He will for a time be controlled in regard to his administration by the Commissioner of Jullander. There was no change in Malar Kotla, which continues to be managed by the Nawab of Loharu. In the Simla Hill States affairs were on the whole satisfactory. As a consequence of the disturbances in Keonthal, referred to in last year's statement, a manager was appointed, and direct administration in this State, as also in Bashahr and Kumharsain, has proved a success. The Rana of Jubbal died during the year. During the minority of the new chief, the State is to be managed by the Wazir.

Central Provinces.

The only event of importance among the feudatory States of the Central Provinces was the murder in October 1898 of the Mahant of Chhuikhadan and his second son. The crime was successfully prosecuted and punished. The State owing to the minority of the successor passed under Government management. Owing to minorities, and in the case of Rehrakhol to the extreme old age and infirmity of the chief, a large proportion of these States are under management. Bamra, Raigarh, Khairagarh, Sonpur, Kankar, and Sakti are, however, administered by their own chiefs, and they are described as wisely administered. The relations of these chiefs with the political officers are excellent. Throughout these States the harvests of 1898–99 were generally good, and the seasons healthy. Public works were pushed on, and the administration proceeded quietly and smoothly on well-established lines.

In regard to famine administration in Kankar further investigation has relieved the State from many of the criticisms passed on it last year and recorded in last year's statement. There were, however, considerable defects in the conduct of affairs in that State which have since been removed. The total gross revenues of the 15 States subordinate to the Central Provinces Administration amounted in 1898–99 to £143,000.

Madras.

The two important States of this presidency are Travancore and Cochin, the reports of which are drawn up for the Malayalam year, August 1897—August 1898. The following are the figures for the trade and revenue of the two States for the two last years:—

	Trade.		Revenue.		Balance at end of Year.	
	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.
	£.	£.	£.	£.	£.	£.
Travancore - - -	1,653,000	1,907,000	590,000	595,000	647,000	609,000
Cochin - - -	200,000	114,000	139,000	227,000	297,000	308,000

The decrease of Cochin trade is due to a regulation which encouraged the landing of goods at British instead of Cochin ports. There was a considerable surplus in Cochin, but the large increase of revenue in Cochin shown above is mainly caused by an adjustment of old accounts. The system of accounts in the State has suffered from laxity and irregularities, but a thorough reform

appears to be now in progress. The principal sources of revenue in Travancore during 1897–98 were: land revenue, £145,000; salt, £130,000; and tobacco, £65,000. Regulations passed during the year in Travancore included an Act to enlarge and define the powers and constitution of the State Legislative Council, a game law, and an Epidemic Diseases Regulation. There is nothing in the year's administration report of Travancore to indicate the grievances and the friction of classes out of which somewhat serious disturbances resulted in the following year. There appears to be a growing tendency in both Travancore and Cochin to resort to criminal courts in civil disputes under the guise of charges of assault and trespass, and it is proposed in the former State to impose fees to check this tendency. Meanwhile civil litigation is also much on the increase in both States. The Travancore expenditure on public works was nearly £160,000 of which £50,000 were spent on communications, which include 3,000 miles of road and 150 miles of waterway. The number of schools and scholars show an increase of about 3 per cent. as compared with the previous year, and increases of 27 and 39 per cent. respectively as compared with the totals of five years earlier. Travancore is one of the best-educated portions of India. Railway construction is in progress in both Travancore and Cochin. NATIVE STATES.

Of the other Madras States the report on Banganapalle indicates an absence of progress and good government, and the need for the appointment of an efficient minister. Disputes between the Nawab and his sub-jaghirdars led to disturbances and riot in 1897 and 1898, but no light is thrown on the matter by the administration report of the State. In Pudukkottai the year was prosperous, and the revenue (£90,000) showed a considerable surplus of expenditure. A new Dewan was appointed during the year and the administration was satisfactory. Of Sanduru and the Godavari, Vizagapatam and Ganjam agencies there is nothing special to record.

The Bombay Government exercises control over some 350 Native States, many of which possess but few attributes of sovereignty. Their total area exceeds 64,700 square miles; their population in 1891 was 8,085,433, and their revenues in 1898–99 aggregated 414 lakhs (£2,750,000). Bombay.

The year 1898–99 was on the whole a prosperous one for most of the States, the chief exceptions being Cutch, the Pálanpur group, and some of the Southern Marátha Country States. Plague, besides causing serious loss of life in Cutch, parts of Káthiáwár, Dharampor, Kolhápur and the Southern Marátha Country States, led to a restriction of local trade, entailing also heavy additional expenditure on the States concerned. Consequently the outlay on public works had to be curtailed in many places; still the leading States of Káthiáwár appear to have maintained their rate of progress by inaugurating a number of useful works, and the year was also not without its share of railway extension. The volume of crime slightly shrank in the larger States, and elsewhere it remained stationary. There was no striking variation in the character of the work of the police. Civil litigation, following on the disappearance of famine, generally showed a rise except in Cutch, the Pálanpur group, Mahi Kántha and Sávantvádi, but the courts were able in most cases to cope with the increase.

The investigation into the long-standing dispute between Cutch and Morvi was concluded during the year, but the actual decision as to the settlement was not arrived at till after its close. In Kathiawar two changes may be noted. First, the Rajasthanik Court came to an end at the request of the States concerned, these States resuming in their own courts the jurisdiction over the cases that used to be dealt with by the Rajasthanik Court. Secondly, new rules were promulgated limiting the liability of Talukdars for the debts of their predecessors. An immediate effect of these rules was to reduce the number of deeds presented for registration.

The only death to be noted among the native rulers of the Bombay Presidency was that of the Bibi of Balasinor; the heir was a minor, and the State therefore came under administration. After a long administration during his minority the Raj Saheb of Vankaner received full ruling powers in his State. The succession in the Akalkote State was settled during the year by the Rani's

adoption of a child, who was recognised as Raje Saheb. The Rana of Danta was restored to the status of a second-class Talukdar.

The following is a table of the States or groups of States under the Bombay Government, together with the British Settlement of Aden, which is under political officers :—

Name.	Area in Square Miles.	Population according to the Census of 1891.	Gross Revenue.
			£.
Group 1 : North Gujarat—			
Cutch	6,500	558,415	175,485
Kathiawar	20,880	2,752,404	1,352,686
Palanpur Superintendency	7,775	645,526	103,893
Mahi Kantha	3,528	581,568	87,1[illegible]
Rewa Kantha	4,980	733,506	179,866
Cambay	350	89,722	46,829
Group 2 : South Gujarat—			
Dharampor	794	120,498	26,456
Bansda	215	41,373	22,464
Sachin	42	19,337	13,377
Group 3 : North Konkan, Nasik, and Khandesh—			
Khandesh Political Agency	1,623	59,055	7,961
Surgana	360	12,398	1,382
Jawhar	534	52,831	14,135
Group 4 : South Konkan and Dharwar—			
Janjira	324	81,780	37,829
Savantvadi	926	192,948	29,701
Savanur	70	16,976	6,006
Group 5 : Dakkhan—			
Satara Jaghirs—			
Akalkot	498	75,774	23,800
Bhor	1,491	155,669	29,936
Aundh	447	65,146	12,486
Phaltan	397	66,383	16,145
Jath	846	71,443	17,947
Group 6 : Southern Maratha Country States—			
Kolhapur	2,855	913,131	246,680
Sangli	1,083	238,945	71,365
Other States	2,090	408,668	123,399
Group 7 : Sind—			
Khairpur	6,109	131,937	80,102
Group 8 : Aden	75	44,079	220,104
Grand Total	64,792	8,129,512	2,980,[illegible]

There was some recovery in the trade of Aden in 1898–99, as shown below, all the figures being converted from rupees into sterling at 1*s.* 4*d.* the rupee :—

——	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
Imports:	£.	£.	£.	£.	£.
By Sea - - -	2,518,884	2,622,675	2,735,394	2,423,199	2,599,533
By Land - - -	243,183	282,659	204,847	220,699	180,068
Treasure - -	407,040	496,557	547,752	293,894	277,275
Total - - -	3,168,107	3,381,891	3,484,993	2,937,792	3,056,876
Exports:					
By Sea - - -	2,039,329	2,276,613	2,173,551	2,088,651	2,109,244
By Land - -	125,572	125,032	138,941	84,829	110,083
Treasure - -	453,807	528,150	457,171	325,212	346,131
Total - - -	2,618,708	2,929,795	2,769,663	2,498,692	2,565,458
GRAND TOTAL - -	5,786,815	6,311,686	6,254,656	5,436,484	5,622,334

The Somali Coast Protectorate was transferred to the charge of the Foreign Office in October 1898, and ceased accordingly to be under the charge of the Aden Resident. The relation of the Resident with the neighbouring Arab tribes continued friendly. Drought prevailed in the interior, and the destitute flocked to Aden. Money and grain was given to the chiefs to help them to meet the distress. The ordinary administration of the Aden Settlement calls for no remark.

CHAPTER XVI.

ARMY.

ARMY.

The sanctioned establishment for 1898-99 was as follows:—

British Troops	73,039
Miscellaneous Officers	788
Native Troops (including European Officers)	145,627
Total	219,454
Corresponding Total for 1897-98	219,566

The actual strength of the Army on the 1st April 1899 was as follows*:—

PUNJAB COMMAND.			
British.			
Cavalry (3 regiments)	1,870		
Artillery (22 batteries and companies)	3,172		
Infantry (14 battalions)	14,748		
		19,790	
Native.			
Cavalry (15 regiments)	9,364		
Artillery (6 batteries and Native Drivers of British batteries)	2,407		
Infantry (40 battalions)	36,535		
		48,306	
			68,096
BENGAL COMMAND.			
British.			
Cavalry (3 regiments)	1,854		
Artillery (27 batteries and companies)	4,202		
Engineers	41		
Infantry (15 battalions)	15,718		
		21,815	
Native.			
Cavalry (11 regiments)	6,967		
Artillery (2 batteries and Native Drivers of British batteries)	777		
Sappers and Miners (8 companies)	1,345		
Infantry (25 battalions)	22,949		
		32,038	
			53,853
Carried forward			121,949

* The establishment was short by one and a half battalions of British infantry not arrived.

			ARMY.
Brought forward - - -			121,049
MADRAS COMMAND.			
British.			
Cavalry (2 regiments) - - - -	1,268		
Artillery (15 batteries and companies) -	2,367		
Engineers - - - - - - -	54		
Infantry (10 battalions) - - - -	10,308		
		13,997	
Native.			
Cavalry (3 regiments) - - - -	1,793		
Artillery (Native Drivers of British batteries)	391		
Sappers and Miners (9 companies) - -	1,522		
Infantry (32 battalions) - - - -	26,250		
		29,956	
			43,953
BOMBAY COMMAND.			
British.			
Cavalry (1 regiment) - - - - -	643		
Artillery (24 batteries and companies) -	3,818		
Engineers - - - - - - -	53		
Infantry (11½ battalions) - - - -	11,614		
		16,128	
Native.			
Cavalry (7⅔ regiments) - - - -	4,653		
Artillery (2 batteries and Native Drivers of British batteries) - - - - -	780		
Sappers and Miners (5 companies) - -	901		
Infantry (31 battalions) - - - -	24,264		
		30,598	
			46,726
TROOPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA.			
*Hyderabad Contingent.**			
Cavalry (6 regiments) - - - -	2,303		
Artillery (4 batteries) - - - -	521		
Infantry (6 battalions) - - - -	4,983		
		7,807	
Body guards (Governor General's and Governors') - - - - - - -	267		
Resident's escort, Nepal - - - -	95		
		362	
			8,169
TOTAL - - -			220,797

* The Hyderabad Contingent is not included in the "Sanctioned Establishment" shown above.

The total of the Native Army Reserves in India on 1st April 1899 was 17,327.

The net expenditure on the Army in 1898–99 was £15,390,819. The total in 1897–98 was £17,409,940.

STATEMENT EXHIBITING THE MORAL AND MATERIAL

The number of Volunteers in the whole of India on 1st April 1899 was as under :—

Command.	Enrolled Strength.	Efficient.
Punjab - - - -	2,027	1,802
Bengal - - - -	13,155	12,230
Madras - - - -	9,811	8,744
Bombay - - - -	5,756	5,550
	30,749	28,326

On the 1st of April 1898 the number of enrolled Volunteers was 30,603, of whom 28,116 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1898-99 was 1,079.

There were no changes of importance in the organisation of the army during the year 1898–99.

Some slight changes were made in the establishments of the corps of Sappers and Miners and of the Madras Cavalry, the latter as a result of the re-organisation of the Governor's Body-Guard, Madras.

The class composition of some Native regiments was altered.

The formation of a new Native Mountain battery was sanctioned.

A Native Infantry regiment was lent to the War Office for temporary service at the Mauritius.

Combatant designations were given to the Officers of the India Medical Service.

The grant of a messing allowance to the Non-Commissioned Officers and men of the British Army on the Home and Colonial establishments was extended, with necessary modifications, to those serving in India.

Military operations. There were no military operations of any importance during 1898–99.

APPENDIX.

TABLES showing the NET REVENUE and EXPENDITURE in the several Provinces of INDIA, and in ENGLAND.

BENGAL.

	1897-98.				1898-99.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£.	£.	£.	£.	£.	£.	£.	£.
Land Revenue	2,015,825	615,309	—	2,630,634	2,003,400	676,510	—	2,680,013
Forest	39,604	39,605	—	79,209	32,378	32,377	—	64,755
Opium	1,121,573	—	—	1,121,573	1,249,476	—	—	1,249,476
Salt	1,628,909	—	—	1,628,909	1,657,656	—	—	1,657,656
Stamps	293,214	879,643	—	1,172,857	287,080	831,239	—	1,118,319
Excise	424,589	424,588	—	849,177	447,196	447,197	—	894,393
Provincial Rates	—	305,144	320,498	625,642	—	311,687	325,657	637,344
Customs	956,970	6,309	—	963,279	1,030,171	6,702	—	1,036,873
Assessed Taxes	170,217	164,260	—	334,477	174,684	168,827	—	343,511
Registration	52,558	52,558	—	105,116	48,966	48,966	—	97,932
Other Heads	—1,644	34,891	16,131	49,378	—39	48,214	12,621	60,572
TOTAL	6,701,315	2,522,307	336,629	9,560,251	6,930,644	2,691,919	338,278	9,870,841
NET EXPENDITURE:								
Interest	—104,370	—3,748	—1,242	—109,360	—104,983	—10,739	—1,409	—117,131
Collection of Revenue	141,341	461,342	33,606	636,293	139,632	436,081	26,719	602,432
Railways	—652,804	—	—	—652,804	—561,008	—	—	—561,008
Irrigation	—	169,522	—886	168,636	—	172,505	—778	171,727
General Administration	19,769	115,823	16,900	152,492	18,328	117,485	16,982	152,795
Law and Justice	—	653,261	—	653,261	—	631,558	—	631,558
Police	—	413,831	—29,302	384,529	—	385,308	—30,139	355,169
Education	—	145,195	75,756	220,951	—	141,999	74,453	216,452
Medical	—	123,360	17,234	140,594	—	119,811	24,637	144,448
Territorial and Political Pensions	76,453	—	—	76,453	80,104	—	—	80,104
Civil Superannuation	—7,343	134,099	1,451	128,205	—5,708	138,732	805	133,829
Stationery and Printing	136,789	68,449	3,374	208,612	135,371	70,235	3,711	209,317
Civil Works	41,634	183,811	237,553	463,998	44,647	192,367	251,883	488,897
Famine Relief and Insurance	384,548	182,616	23,879	591,043	214	1,528	410	2,152
Other Heads	22,371	3,782	27,367	53,470	29,895	3,699	24,367	57,961
Provincial and Local Balances	—	—202,166	16,069	—186,097	—	146,299	1,783	148,082
TOTAL	58,389	2,447,147	411,789	2,917,325	—223,486	2,546,791	393,403	2,716,717
Surplus	6,642,926	75,160	—75,160	6,642,926	7,154,121	55,127	—55,125	7,154,124

APPENDIX.

FINANCE.

North-Western Provinces and Oudh.

North-Western Provinces and Oudh.

	1897–98.				1898–99.			
	Imperial.	Provincial.	Local.	Total.	Imperial.	Provincial.	Local.	Total.
Net Revenue:	£.	£.	£.	£.	£.	£.	£.	£.
Land Revenue	2,850,154	859,289	2,137	3,711,580	3,162,935	1,235,740	2,235	4,400,910
Forest	45,678	45,677	—	91,355	51,915	51,915	—	103,830
Opium	31,490	—	—	31,490	34,082	—	—	34,082
Stamps	119,473	363,538	—	483,011	122,137	366,413	—	488,550
Excise	224,477	74,536	—	299,013	283,008	94,423	—	377,431
Provincial Rates	—	79,636	540,553	620,189	—	91,641	625,478	717,119
Assessed Taxes	84,830	80,195	—	165,025	83,485	79,385	—	162,870
Other Heads	22,671	24,736	6,917	54,324	16,511	19,097	7,236	42,844
Total	3,378,773	1,527,607	549,607	5,455,987	3,754,073	1,938,614	634,949	6,327,636
Net Expenditure:								
Interest	45,588	—2,060	—1,211	45,317	48,835	—5,881	—1,223	41,781
Collection of Revenue	44,212	338,804	239,963	622,979	45,350	324,489	237,228	607,047
Railways	—444,792	—	—	—444,792	—507,828	—	—	—507,828
Irrigation	—80,850	—220,006	—	—300,956	—236,839	52,311	—	—184,528
General Administration	15,994	92,102	5,262	113,358	16,073	91,675	6,963	114,711
Law and Justice	—	445,334	—	445,334	—	397,052	—	397,052
Police	—	291,472	180,730	472,202	—	300,143	185,320	485,463
Education	—	47,023	75,783	122,806	—	48,347	75,747	124,094
Medical	—	59,468	27,894	87,362	—	60,873	26,483	87,356
Territorial and Political Pensions.	62,505	—	—	62,505	59,277	—	—	59,277
Civil Superannuation	—7,047	139,411	1,255	133,619	—5,464	142,865	1,223	138,625
Stationery and Printing	—674	38,585	713	38,624	—633	39,416	622	39,405
Civil Works	8,838	150,993	129,016	288,847	13,784	164,233	146,246	324,263
Famine Relief and Insurance	715,090	—	—	715,090	—93	—	—	—93
Other Heads	28,758	5,166	14,969	48,893	32,489	4,093	15,644	52,226
Provincial and Local Balances	—	—	17,148	17,148	—	219,042	40,601	259,643
Total	391,122	1,385,692	691,522	2,468,336	—535,069	1,838,709	754,854	2,038,494
Surplus	2,987,651	141,915	—141,915	2,987,651	4,289,142	99,905	—99,905	4,289,142

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